THE NEW ENGLAND FARMER

DEVOTED TO AGRICULTURE, HORTICULTURE, AND KINDRED ARTS.

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JANUARY 1, 1869.

ONTH succeeds month, and year succeeds year. The hand on the great dial now points to a new date, and we must adjust our accounts and our correspondence to it. The year 1868, with its labors and cares and sorrows, and its joys and pleasures, is now numbered with the years of the past, and we are assuming the responsibilities and the labors of a new year.

May it be to all our readers a year of pleasure and successful labor. That it may prove such it will be well for us all to review the experience of the past year, and inquire wherein we have been successful, and in what we have failed; and to inquire what are the causes of success, and what of failure.

New dates are so many stations on the journey of life, from which we may profitably look back over the space we have passed, and forward along the vista which is opening before us.

The disappointments and failures of the past, instead of discouraging us, should teach us lessons of wisdom in arranging our plans for the future. From our successes we should derive new faith and energy. The "Gods help those who help themselves," said the old master of Fable; and all experience proves he was right. By the very efforts we make we acquire new inspiration and an increase of power. Says the poet,

"Hope springs ever new in human hearts."

Then let our hopes be high, and may they inspire corresponding determination and effort, and may our efforts and determination not be confined to the field of agriculture, but embrace intellectual, social and moral culture as well. We will aim not only to secure good crops, but an increase of knowledge, of social refinement and of holy living.

A review of the results of the season now closed should call out devout thankfulness for the blessings with which the labors of the husbandman have been crowned. Local failures and disappointments have of course occurred, but on the whole the country has been favored with abounding harvests, and almost universal health. The great staple crops were probably never better; manufactures and commerce have given good results to all wise enterprise; the laborer has been fully employed at high wages, and enabled to surround himself with comforts, and obtain for himself and his children the means of education and social im-

provement; science has made new developments, and received new applications in the arts; peace has prevailed in our borders, and our country has increased in influence and in the respect of the nations of the earth.

Not only may we rejoice in the past, but we have everything to animate and encourage our hopes for the future. The completion of the Pacific Railroad; the establishment of regular lines of steam communication with China and the East; the laying of telegraphic lines to connect this country with the continent of Europe; the large immigration from Europe, and the great increase of the use of farm machinery must greatly extend our commerce and increase the amount of our productions. A new world for cultivation and stock raising is fast opening up in the western half of our wide empire, and the means of communication with it are opening up as fast, which will secure to it facilities for reaching a market, and to the eastern manufacturers an outlet for their productions. All these and many other circumstances that we need not particularize, are full of promise, and prophetic of glorious results in the future.

We will, then, commence the labors of the year with renewed feelings of gratitude to the Giver of all good, with an increase of charity in our hearts towards all men, and work for humanity,—work with all diligence, and work on with patience,—and may it be to us all "A HAPPY NEW YEAR."

PEAS INSTEAD OF CORN.

We have been frequently told that the Canada farmers use peas instead of corn to fatten their hogs, and that they make very firm and sweet pork.

A writer in the *Rural New Yorker* says he planted last year two and a half acres in peas; seed nine bushels. Land fair but very weedy. Sold green peas to the amount of $13. Fed to two hogs and five pigs seventy-eight dollars worth, and has on hand forty bushels, worth eighty dollars, making the whole crop worth $171; deducting the seed, $18, leaves value of crop, $153. He began to feed in July and fed in August, September, October and November, whereas his corn would not have been ripe enough to feed till October and November. It is easier to fatten pork in warm weather. He thinks a bushel of peas in September worth two of corn in November. The peas can be grown on soil too poor or too foul to give a good return in corn, are more easily raised and harvested, make solid, sweet pork, and the straw greatly improves the quality of the manure,—mixed with other grain it is the best food for horses he ever used. He soaks the peas twenty-four hours in water, when the hogs eat them greedily and fatten rapidly. We have no doubt that a good crop of peas may be raised with less manure than wheat or corn. They should be put in early with us, as late peas are apt to blight. Peas were formerly raised to a considerable extent by New England farmers, and ground up with oats, &c., for pig "provender."

SEASONING RAILS AND BOARDS.

After some remarks on the advantages of cutting rails and boards designed for fencing of a uniform length, the *Country Gentleman* makes the following suggestions in relation to seasoning them:—

There is another point of importance in providing fence stuff. This is to have the boards sawed or the rails split immediately after the trees are felled, or as soon thereafter as possible, and set up at once to dry. The reason that summer cut lumber lasts so much longer than winter cut stuff, is the rapidity with which the seasoning process is effected in the dry summer air. If logs are cut and then allowed to lie several months, they will inevitably become more or less "sap-rotten," and the stuff from them prove inferior both in strength and durability to that which is quickly seasoned while yet fresh and sound. Probably logs cut in early summer, and remaining untouched, would become thus injured more rapidly during hot weather than in a colder temperature; but when split or sawed as small as ultimately desired, the same heat that would promote fermentation in the large log, would dry and season the small split or sawed portion into a horny durability. The best time to cut and split rails is at midsummer, as we have learned by repeated experiment; the softer woods, as basswood for instance, lasting more than twice as long before decay sets in, as when cut in winter or spring. We have, therefore, preferred paying a higher price for the work in summer than at other seasons. But if rails must be cut in winter, let them be split at once, and placed where they can dry as rapidly as possible. In woods, where there is no wind, the drying process will be slow; but if drawn out near some point where they will be wanted, and set up where strong winds will sweep through the pile, the seasoning will advance with much greater rapidity. When the warm weather of spring arrives, they will have the additional advantage of sunshine, instead of the shade of woods. The same care should be taken with boards. Make an early agreement with the sawmill man to saw them soon after drawing; and as soon as sawed, stick them up in the wind where they will season as rapidly as possible.

—The Agricultural College of Michigan graduated a class of ten young men this fall.

LETTER FROM THE FARM.

CONCORD, Nov. 27, 1868.

The Season and Crops generally—New Milch Cows—Other Stock—Farm Improvements—Apples, Cider and Vinegar.

GENTLEMEN:—There are few things relating to the operations on the farm that strike me more singularly than the *peculiarity of the seasons* with regard to the crops. For instance, on land where I raised a crop of parsnips ten years ago, that was fairly estimated at 800 bushels per acre, the crop this year would not be 400 bushels. In the intervening years the land has always been highly manured, every crop carefully tended, and not cultivated with parsnips. The roots ten years ago were white, very free from fibrous roots, and so long that the man who dug them, said "he could dig post holes just about as fast!" They were brittle and very sweet. This year they were deficient in quantity, short, "scraggy," tough, and lacked that delicious flavor which a good parsnip possesses. The same remarks are equally applicable to the beet crop.

Cabbage and cauliflower were club-footed on the same soil, and under the same treatment, where abundant crops had been produced before. A patch containing 100 cauliflower plants grew finely until they began to head, and then seemed to remain stationary. Upon examination, every one of them was found to be club-footed, and the whole were plucked up and fed to cows. The club was not a solid mass, but made up of numerous white bunches from the size of peas to that of half a hen's egg. The carrot crop was little better than that of parsnips or beets.

On the other hand, pole beans have run as though they expected to win the race at an agricultural fair, and seemed very loth to stop when frost and snow had whitened them. In some former years, no power of manure, bright suns and timely rains, would induce them to run up the poles. Even if carefully wound around the poles in the manner in which they are disposed to go, and tenderly tied up with strings, they would utterly refuse to go-ahead, and untwist themselves and hang down their heads like a lout of a boy who has been detected in throwing paper pellets into the faces of the girls across the school-room desks! They would not run, and did not produce, so that the dinner-pot was rarely brought into use to prepare that delicious dish,—green shelled beans, delightfully seasoned with a slice of sweet, salted pork!

The careful observer will notice these peculiarities in the crops of the farm—but particularly in the garden crops—every season. They are puzzling to me. I have watched them for many years with all my powers of examination and observation, and yet feel myself unable to account for them. Who will tell us what peculiar conditions of the earth or atmosphere cause these singular phenomena? When will the wise men of the *State Board of Agriculture*, or the learned ones of the *Agricultural College*, unravel these mysteries, so that our tables shall abound in cauliflower and cabbage, beets, beans and parsnips, with some degree of certainty, each succeeding year?

The crops, generally, the past season, were good. Owing to cold and wet weather at the usual planting time, they were got into the ground late. A large proportion of the Indian corn was not planted until the first week in June, and much of it not until the second. The weather continued quite unfavorable for some weeks after that period, so that the prospects of a corn crop were not at all flattering. Then came the unparalleled hot season of middle July, which not only revived the corn, but brought new hopes to the mind of the planter. Indeed, without this hot season, there would probably have been but few fields of sound corn in all this region. It brought it forward with a rapidity such as was never observed before, and heated the soil so much as to keep the crop going forward when the atmospheric conditions were unfavorable. The result has been a fair average, at least, of all the leading crops. In two or three neighboring States, where I have made brief visits during the autumn, I find the same results. There, as well as here, the statement is common that, up to the 4th of July, the prospect of an average corn crop was altogether discouraging.

From the abundance of the crops some singular changes have taken place in regard to the prices of stock. New milch cows are in unusual demand, and bring prices varying from $40 to $125. Scarcely any cow that would come under the term of good, sells for less than $50, while most of them bring nearer $100

While these high prices prevail for new milch cows, other stock,—wherever I have been, both at auctions and on the farm,—is selling at prices much lower than it commanded three months ago.

In the midst of our great national progress in art and science, I have been gratified in all my visits to notice what seems to me an unusual attention to *improvements on the farm.* Do the inventions that relieve and facilitate labor, and that add new graces to social life, as well as encourage and promote the industry of our people, stimulate the farmer to better practices,—or are these new efforts called forth by a greater demand and higher prices for his products? It would not be irrational, I think, to suppose that they act upon each other; that the embellishments in rural life, and a higher cultivation of the soil will stimulate the inventive genius of our people, while the labors of the inventor and mechanic will greatly avert the toil of the farm, and leave time and inclination to the farmer to improve the appearance of his home, as well as to increase the productive power of his soil. Indeed, all useful labor, of whatever nature it may be, makes a part of the great whole, and becomes in one way or another important to all.

The apple crop in the New England States this season was larger than it has been for several years past, but the fruit was very imperfect; so much so, that fully one-third of it all was turned over for making cider. Good cider vinegar has been selling for fifty cents per gallon among the farmers in the country. A considerable portion of the cider made will probably be turned to vinegar, and that article become cheaper. Yours truly,

SIMON BROWN.

R. P. EATON & Co.

SALT FOR GRUBS.—At a late meeting of the Herkimer county, N. Y., Farmers' Club, Mr. Skinner said that last spring he ploughed up an old sod where there was an immense quantity of grubs. He sowed upon three and three-fourths acres, soon after ploughing, two barrels coarse salt. A day or two after the application there was rain, which dissolved most of the salt. The ground was then thoroughly harrowed and planted to corn. About half a pint of leached ashes was placed upon each hill of corn. The yield of corn was very large, and not a hill was injured by worms. He had no doubt, had there been no application of salt, that the grubs would have destroyed the corn.

HARDENING THE MOULD BOARDS OF PLOUGHS.— A new method of hardening ploughs has been discovered lately, which gives them the hardness and temper of steel, in combination with the toughness of iron. The iron mould-board is heated and dipped into molten iron. It remains there ten seconds, when the two surfaces become heated to a white heat, while the centre is not heated through. It is then dipped into water; the surface comes out harder than the highest tempered steel, while the interior retains all the strength and toughness of iron. These mould boards take the finest and hardest polish, and will, at the same time, be tough enough to endure any reasonable knocking about in a stony soil.

For the New England Farmer.

THE GARDEN IN JANUARY.

Again the revolving sun,—or rather the earth moving in its annual circuit,—brings us to the commencement of a new year; and the wise man reviews his past course, and resolves on a future one. How is it with the farmer and his garden? Has he, during the last year, improved on his former practice, and come to the conclusion that a good garden, in connection with the farm and house economy, is one of his most profitable investments wherein he can expend his labor, in season? Let the reader look out on his garden, and, as he reviews the last season's products from that little spot of ground, tell me if he has not been better rewarded for his time, labor, and expense there, than he has been on any other cultivated portion of his farm of equal area. What would it have cost you to purchase the same amount of inferior products? If you have kept an account with the garden you can at once tell how many dollars and cents it has cost and how many it has brought in. But is the pecuniary value of what the garden produces, or what those products would sell for, all you take into account? Is there not much saving and an amount of satisfaction that money cannot purchase, in having such products of your own raising?

But if you have not a good garden, select that nice piece of ground lying convenient to the house, and if it is a sward, cart on and spread a heavy coat of good manure,—you need not be afraid of giving it too much, if it

can be well turned under, any time when the ground is not frozen, or if a thaw comes in the course of a few weeks, plow it with narrow furrow slices, ten or more inches deep, if the the soil is so deep, if not, to the depth of the soil; as but little of the under soil should be turned up at a time. If you have a garden already, it will be an advantage to give it a good coat of manure, broadcast, any time during the month. The rains will wash the soluble parts of the manure down, and the soil will absorb them, and a greater benefit will accrue by the fertilizing qualities of the manure being well diffused through the soil. Then plan in your mind just how much and what part shall be devoted to each particular product; where and how large shall be the hot-bed, the beds for beets, radishes, parsnips, lettuce, salsify, chicory, spinach, &c.; where shall be planted the pole and dwarf beans, potatoes, early corn, cucumbers, squash, tomatoes, &c., and the particular portion that each and every other variety of product, grown in the garden shall occupy. Then see if you have all the requisite seeds in prime order; if not procure them at the first opportunity, while the seed merchant and grower has a full stock on hand. All seeds which are in the least of doubtful vitality, should be tested in a box of soil in a warm room,—noting the number of seeds planted, and compare them with the number of plants that come up. *Good seed* is the cheapest, even if it costs three prices.

A garden which has at any time stagnant or a surplus of water in the upper or under soil within two or three feet of the surface, or which has a close compact surface soil, or a hard, retentive subsoil, or if the soil is shallow, or cold, cloggy or moist, delaying early spring planting, surely needs underdraining, and it will pay to have it done. Autumn is the best time for draining, but often there are times when it can be done during winter, and the cost is but a trifle, except for tiles. Tiles make the best under-drains, and in the long run, if not at first, are the most economical. The benefits derived from underdraining are many; among which I may mention, deepening, warming, enriching, drying and sweetening the soil; thus in fact lengthening the season in which it may be worked and plants grow in it.

This is the season when the farmer is most at leisure, and he should endeavor to cultivate and enjoy his advantages, remembering that time spent in the "Farmers' Club" meetings, in social visits, reading and conversation, or even in merry pastime, is not time misspent; but that the culture and relaxation of mind and muscle tends to invigorate the system and the mind, and that the daily toil of a more busy season is easier accomplished therefor.

With all your plans, plan for the ornamental as well as the useful. Look around the house and premises, and see wherein you can improve its appearance, by planting trees, shrubs, flowers, &c. See if any heretofore planted need pruning, and in a mild time, when they are unfrozen, prune them.

Look out for the eggs of the "tent caterpillar" They are found in a little bunch encircling small branches, and may be detected when the sun shines, by a shining appearance; cut off the twig, with the eggs, and burn them, thus saving future trouble.

Accumulate manure; save all the wash from the house, slops, &c., and add it to the compost heap; let nothing that may be turned into plant food be wasted, but save it, though small, as you would nickel pennies, by the saving of which the dollars are accumulated.

Cold frames, in very cold weather, will need extra protection, but in warm days the covering should be removed and some ventilation given; light and air are essential. Protection to grape vines, strawberries and half hardy plants may be given now, if not already done, as injury by cold weather seldom occurs till a thaw comes; sudden changes from cold to warm and warm to cold, by alternately starting the sap flow and suddenly freezing, burst the sap vessels, and thus destroy the plant.

Vegetables in the cellar will continue to arrive at perfection, and need care, to keep from freezing, and to prevent rotting. Remove all decaying vegetables, or other waste vegetable matter from the cellar.

W. H. White.

South Windsor, Conn., Jan., 1869.

For the New England Farmer.

MARL LIME.

Your correspondent W. I. Simonds, inquires about marl lime. There are several deposits of shells (called marl lime) in this section. Some of them are several feet deep, and usually covered more or less with muck. These beds have the appearance of being the bottom of a pond in times long past.

One of these deposits is situated in Williamstown, the owner of which burned quite a quantity about a year ago, and others with myself have used it the past season on crops. My neighbor, who used both the burned and unburned, pronounces the burned much the best; besides, it is the most convenient to use.

A gentleman from Calais informed me that he procured several barrels, and that it pays well, although he did not use up his supply in consequence of ill health. He says it is astonishing to see the effect when applied to hoed crops. I used only five barrels, in all cases with perceptible benefit. The most marked results were noticed when applied to the potato crop, at the rate of less than three barrels to the acre. On land well manured, it gave me, in an average of eight experiments, an increase of twenty-five pounds to the square rod, or over sixty bushels to the acre; and on

greensward, without manure the increase of crop was much greater.

This marl when burned resembles fine ashes, but is somewhat heavier. The cost is trifling compared with other fertilizers. Potatoes raised upon this appear much better and are less liable to be affected with rot than where superphosphate is used. They are also free from the rough or rusty surface. But the phosphate manufactured at St. Johnsbury, Vt., will grow the largest crops.

Perhaps this may be the same deposit alluded to by Mr. Simonds. If so, he need not be afraid to try it. A. D. ARMS.

Montpelier, Vt., Nov. 25, 1868.

For the New England Farmer.

CULTIVATION OF CRANBERRIES.

Will Mr. Hersey tell us why "in preparing the soil for cranberries the surface should be removed down to the peat?" D. L. SHEPARD.

Foxboro', Mass., Nov. 23, 1868.

REMARKS.—The above inquiry, together with that of "W. B. K.," of West Fairlee, Vt., in relation to a variety of the cranberry for Central Vermont, were forwarded to Mr. Hersey, who has kindly responded, as follows:—

In reply to Mr. Shepard's inquiry as to why "in preparing the soil for cranberries the surface should be removed down to the peat," I would say, If the land is to be covered with not more than from three to six inches of sand, unless the soil is removed, the grass will find its way to the surface in such quantities as to make it very difficult to keep it down without disturbing the horizontal runners of the new plants. It should also be removed, because when properly dried and pulverized it is one of the best materials to absorb the liquids and gases of the barn, which are too often permitted to pollute the streams, and render the surrounding atmosphere anything but agreeable.

In reply to the question of "W. B. K.," Is there any kind of cranberry that will prove profitable as far north as the middle of Vermont, if set on the right kind of land?" I am not able to speak from experience, and believing that the value of a communication on agriculture depends mainly whether it contains facts ascertained to be such by the actual experience of the writer, or whether it contains supposed facts suggested to the writer by a friend, I hesitate to give an opinion.

The cranberry in this latitude blossoms about the first of July, and the crop is gathered the last of September. In a higher latitude it would be important to have the vines covered with a few inches of water until all danger of frost in the spring is over. The land should then be kept as dry as possible until there is danger of frost in the autumn, then flow it every cool night until crop is secured.

If W. B. K. has the right kind of land he should try a few rods and report to the FARMER the result. E. HERSEY.

Hingham, Mass., Nov. 27, 1868.

For the New England Farmer.

MENTAL CULTURE --MANURE.--OVER-WORKING.

There is nothing more important to the farmer, or indeed to any other business man, than first to know the effect of causes, and then the causes of effects. The mere fact that certain things produce certain effects, is not enough. Many know that corn when planted on old manure produces better than when planted on green manure. The effect is understood while the cause is often unknown.

It is sometimes said that one must be a thinking man to be a good mechanic, but that any fool can be a farmer. But mechanics, merchants and professional men who try farming find that such is not the case. To be a successful farmer it is of the utmost importance that we study our business well. Intelligence, industry and economy are essential to the prosperous farmer.

When I see a farm with good substantial fences, and no loose gates torn from their hinges, or old blinds hanging from the window frame by one hinge, I should not fear to drive into his door-yard in the night. I should not expect to confrot a huge dog, or smash against an old cart. His chains, his ploughs, his harrows, his cultivators, hoes, and all other tools, will be found in their proper places, and well cleaned, when not in use. Order is economy. It costs less to take care of tools than to hunt for them. But there may be a mistaken economy. To spend three hours in raking scattering spears of hay, that when weighed would not amount to ten pounds; or to use up one's strength and perhaps an axe on some old hard knots, for an armful of wood, may cost more than it comes to.

I saw a man, yesterday, who said he must use a little more economy; his family was very expensive; farming didn't pay, and he was going to stop his paper. I thought it might prove like splitting tough knots, or raking three hours for ten pounds of hay.

I believe it is a slow way to learn without some means of learning, and that a good farmer's paper is a great help, indeed almost indispensable, especially to young farmers. If we get all our knowledge by our individual experience, we may find it a good but dear school. A whole year may be required for a single experiment. We should profit by the experience of others. But at the same time,

"He that by the plough would thrive
Himself must either hold or drive."

Manure is the life of farming. The question should be, how shall we make the most of

it, and how apply it? I have before mentioned the fact that many men use old manure, but can't tell why. All vegetation is made up of decomposed matter. Manure applied before decomposition takes place, or before it commences, is of little use or none at all, until it does take place. It is a fact that manure left exposed one year before use produces a more rapid growth of vegetation than green manure, but it is also a fact that one-half of it or nearly so is lost. The more rapid the decomposition the more rapid the growth of vegetation.

If the ground did not undergo a change while the seed was in it, plants would not grow at all. When we apply manure it is to help the ground in her effort to feed the plant. A large amount of manure is thrown out of the barn to lay exposed to the rains a year before it is used, and when wanted the very best of it is gone. Nearly all farmers know the great waste of throwing manure out of their barns, but think they can't help it. They have not the means to cover it with a shed or cellar. If such men wait until they get the means from their farms they will not be likely to get it at all. Put up a shed at any rate. You can sell hay enough in two years to pay for it, by the extra amount of manure saved, if you cut twelve or fifteen tons of hay now. In this as in many other things the head may be made to save the heels, or in other words contrivance is as good as hard work.

As a general thing New England farmers work too hard. Many of us work sixteen hours in a day in the summer, with no time to rest. This is too much. It is more than horses or oxen can endure. But some say it is necessary to live. I think not. A man can do about so much work and no more. Work sixteen hours in a day and a man is all exhausted. He goes to bed tired and gets up tired. If his wife asks him to go any where with her, he answers with a snarl, "I've something else to do." Over-work makes him fretful. The harder he works the more fretful he grows. But, says one, how shall I avoid it? Work less hours. Sit down in the shade or fireside after supper, with your wife and children, and you will soon see that old smile return to the face of your now care-worn and toiling wife. A little rest wont hurt her. It will do you both good. You wont be poorer at the end of the year, but I will warrant you will be more happy. M. CAMPBELL.

North Turner, Me., 1868.

CURIOUS FREAK OF NATURE.—To mark my sheep, I paint a large black K on the rump of the bucks and wethers, and on the right side of the ewes; and one ewe, no doubt thinking she would save me the trouble of marking her lamb, marked it herself, and it had a good black K on its rump when it came. —T. L. K., *Wisconsin, in Co. Gentleman.*

POINTS OF A GOOD COW.

She's long in her face, she's fine in her horn,
She'll quickly get fat without cake or corn,
She's clean in her jaw, and full in her chine,
She's heavy in flank and wide in her loin.

She's broad in her rib, and long in her rump,
A straight and flat back, with never a hump;
She's wide in her hips, and calm in her eyes,
She's fine in her shoulders and thin in her thighs.

She's light in her neck, and small in her tail,
She's wide in her breast, and good at the pail,
She's fine in her bone, and silky of skin,
She's a grazier's without, and a butcher's within.

London Farmers' Magazine.

SUGAR MAPLES FROM THE SEED.—In reply to a subscriber, we would say that the best time to plant the seed of the sugar maple is immediately after it has ripened in the fall. It will do well, however, sown in the spring, if it is kept in a dry, cool place. A seed bed should be prepared somewhere in an open field where there is plenty of light and heat. The soil should be deep, rich and mellow, well drained and free from weeds. Muck or leaf mold from the forest will form the best manure; but if these cannot be conveniently obtained, well-rotted compost or old well-seasoned farm-yard manure may be used. It is well also to add bone dust and wood ashes in small quantities. A trench should be made about half an inch deep and a foot wide, care being taken to pulverize the bottom well several inches deep. The seeds should not be placed too thick—not nearer than two or three inches apart, and then the dirt carefully raked over them. If more than one drill is needed, they should be at least four feet apart, so as to allow a cultivator to pass between them. Care should be taken from the time the seeds come up to keep the ground free from weeds; it should also be stirred frequently so it will not bake; but pains should be taken not to disturb the roots more than is absolutely necessary.—*Prairie Farmer.*

FALL MANURING.—Another valuable use of manure at this season, is its application to grass, to be turned under in spring for corn. If spread now, carefully and evenly, the liquid or soluble portions are carried down along the fibres of the grass, and intimately diffused through the upper soil. If the application is made early, the effect is greater, as the diffusion into the soil is not only more perfect, but the growth of grass (or if clover, still better) will add to the fertility. But even now, or during the first half of winter, manure is worth far more than if left for spring application, when there is not time enough for it to become diffused, and when likewise the ground is packed and hardened by drawing heavy loads over it. We have sometimes observed a difference of twenty bushels of corn per acre in favor of the fall spreading of manure, as compared to spring application, when applied to sod in both instances. It is only

when spring manure is very finely broken by repeated harrowings, that it proves of much immediate value.—*Country Gentleman.*

AGRICULTURAL ITEMS.

—If a poor man in England kills a rabbit without a license, he is liable to be sent to jail and to be fined $100.

—All wrinkled peas, says an exchange, are more delicate than those that are full and perfect in form; like sugar corn, the saccharine matter contained in them, causes them to shrivel when dried.

—At a late sale of sheep, at Worcester, England, fifteen Shropshire Down rams brought from £6 6s to £23 2s. Twenty Leicester rams averaged £6 16s. 6d. Ten Oxford Down rams from 14½ to 7 guineas.

—A correspondent of the NEW ENGLAND FARMER writes that Mr. Hoit Day, of Chesterfield, N. H., caught year before last twenty-one foxes; last year twenty; this year, up to October 29, ten, in steel traps.

—A mail carrier in Western Michigan uses a yoke of Texan oxen for carrying the mail. They are yoked to a cart and trot as well as horses; making fifty miles a day for two days in each week, that being the number of times the mail is transported.

—It is well known by butter makers that the cream which first rises on milk makes nicer butter than that which rises after standing a long time. It is said that the milk that makes the butter that Queen Victoria eats is skimmed twice, and twelve hours afterwards it is churned.

—A farmer on digging a well on one of the Western prairies, found the remains of an ancient well, thirty feet below the surface, which had manifestly been dug and walled in centuries ago. It is believed to have been sunk by the race of people who were the architects of the remarkable mounds and parallels which abound in most of the Western States.

—The students of the Massachusetts Agricultural College having finished harvesting, and staked out operations on a swamp, have commenced the lecturing season. Dr. Calvin Cutter, of Warren, as we learn by the *Amherst Record*, delivered his first lecture on Physiology, Nov. 11, and Charles L. Flint, Esq., is expected to commence a course on Dairy Farming, this week.

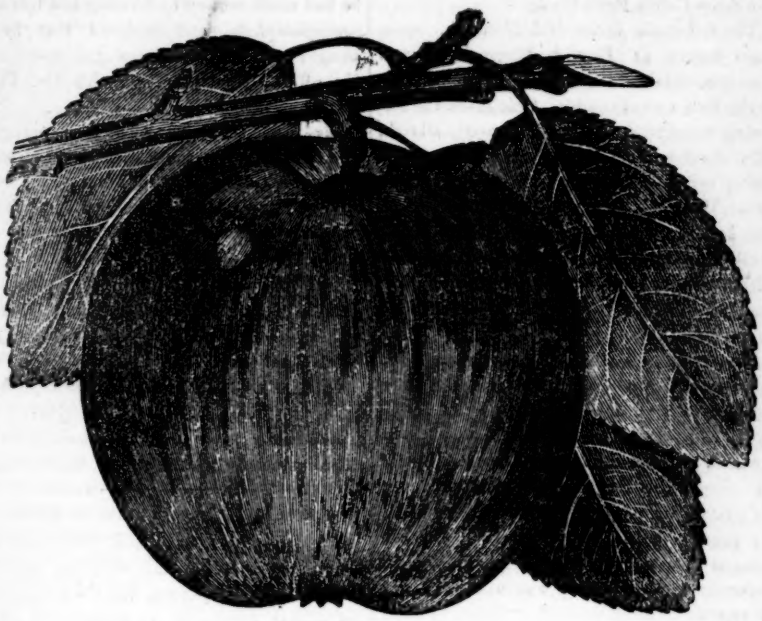
—A correspondent of the *Mirror and Farmer* says that the owners of three adjoining farms kept turkeys the past season. The first had over a hundred. They were heard to be in trouble, and on going to the rescue a fox was seen at work and driven away, but not till he had killed fifty-three of the young turkeys. He then went directly to the flock of the next neighbor and killed nine before he was discovered and driven away, and before night he found the flock of the third neighbor and killed eighteen, one of them an old turkey. Making eighty in all killed in one day by a single fox that escaped unharmed.

—A Kentucky correspondent of the *Country Gentleman* says, two years ago sorghum was greatly over-planted. This fact gave that interest a temporary shock; but it is reviving and rooting itself firmly in the affections of the people, and I believe now, as I did years ago, that it supplies the one need Kentucky had, to be the most abundant and blessed home a farming people ever claimed. You may set it down as a staple now, and the average price of syrup one dollar per gallon.

—A little boy, about eight years old, son of Mr. Eli Bates, exhibited at the late Fair at Milford, Mass., a pair of black calves, twins, probably, not over five months old, which were perfectly broken to draw a little blue cart which was made for them. The deserving little fellow, while exhibiting his team, in all the pride of childhood, was made the recipient of "scrip" to the amount of several dollars, by gentlemen who witnessed his exhibition. They nearly filled his hat with currency, whereat he was so overcome with joy, pride, gladness, and all the emotions of his young heart, that he cried, laughed, tried to talk, broke down, and finally turned away, his mind stored with rich memory of the kind persons who had done him so much good.

—A correspondent of the *Mirror and Farmer* says, sometime last September I went out to salt my sheep and noticed that one of them appeared quite dumpish, as though she was sick. I noticed also quite a number of green flies around and upon her back. Upon examination I found the wool upon her back packed full of fly blows. I also noticed the same kind of flies around another sheep, but she appeared as well as the rest. In about six days I went to the pasture again and these two sheep were missing. I found the carcass of one of them literally alive with maggots. They were both young sheep and in good condition. Can any one tell what ailed them and give a remedy?

—The farmers in the vicinity of Lexington, Ky., are bragging on large ears of corn. Among the specimens sent to the office of the *Home Journal*, an excellent agricultural paper printed in Lexington, are one ear of White Dent, 11 inches long, 7 inches in circumference, 12 rows of 60 grains each; in all 720 grains; another 9 inches long, 8 inches in circumference, 14 rows of 46 grains; in all 644 grains. A Dent corn, not named, 10½ inches long, 7½ inches circumference, 18 rows of 60 grains; making 1080 grains in all. Yellow corn, 10 inches long, 8 inches in circumference; it had 18 rows of 52 grains; in all 936 grains. Orange Yellow, one ear, 9½ inches long, 8 inches circumference, and 18 rows of 49 grains—882 grains; another 10½ inches long, 8 inches circumference; had 20 rows of 46 grains—920 grains.



HUBBARDSTON NONSUCH—OLD ENGLISH NONSUCH—TOLMAN SWEETING.

As I believe you are always willing to give information upon all subjects through the columns of the FARMER, I send you three varieties of apples. Please name them, and oblige

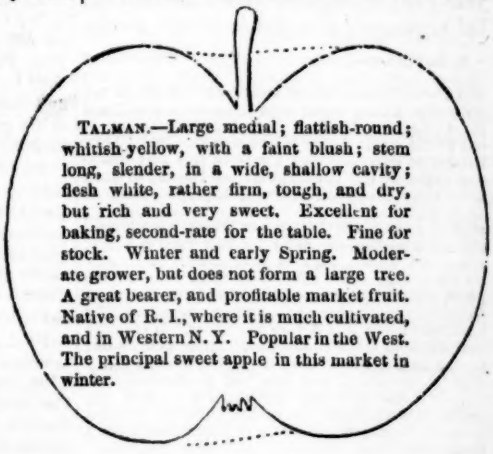
B. L. STETSON.

South Hanover, Mass., Nov. 12, 1868.

REMARKS.—The specimens above alluded to were received in good order. They were carefully and neatly packed.

The largest fruit is the Hubbardston Nonsuch, a very popular and high-priced apple,—specimens like those received are now retailing on the street at four to six cents each. The above cut, although not a very good picture, represents the Hubbardston. Mr. Cole describes it as "large to very large; roundish; yellow, mostly covered with red, which is bright in the sun; lower part of the cavity and basin, greenish russet, numerous dark specks; stem two-thirds of an inch long, in a broad, deep cavity; calyx rather large, open, in a broad basin; flesh yellowish-white, tender, crisp, of a very mild, excellent aromatic flavor, rather saccharine. Oct. and Nov. A good grower and good bearer, mostly in even years. Origin, Hubbardston, Mass.

The light colored apple is the Tolman Sweeting, — sometimes written Talman, or



TALMAN.—Large medial; flattish-round; whitish-yellow, with a faint blush; stem long, slender, in a wide, shallow cavity; flesh white, rather firm, tough, and dry, but rich and very sweet. Excellent for baking, second-rate for the table. Fine for stock. Winter and early Spring. Moderate grower, but does not form a large tree. A great bearer, and profitable market fruit. Native of R. I., where it is much cultivated, and in Western N. Y. Popular in the West. The principal sweet apple in this market in winter.

Tallman. We copy its outlines and description from Cole's Fruit Book.

The red apple is the Old Nonsuch, sometimes known as English Nonsuch, Winter Nonsuch, Richfield Nonsuch, and in New York, Red Canada. Mr. Cole gives the following description,—"Medial; nearly all red; stem slender, in a very deep cavity; small basin; very tender, juicy, inclining to saccharine. Winter. Moderate grower, good bearer. In New York, and some sections in the West, it is large, fair, and excellent; but little cultivated here, as it is not profitable." Mr. Hyde said that it is not as common now as in his boyhood, when it was highly prized.

In relation to the light and the red apple we found several good judges in doubt as to their names. And we are indebted to J. F. C. Hyde, Esq., President of the Massachusetts Horticultural Society, who at once and without reference to the books, identified them. His powers of perception and of memory, in this respect, are truly wonderful. On one occasion when naming some pears which were similar in appearance, he was asked, "How do you distinguish them?" "Why, by their looks, as I do my neighbors or my children."

SUPERPHOSPHATE.

There appears to have been a lively discussion at one of the late meetings of the New York Farmers' Club on the subject of special fertilizers. According to the report of the *Tribune*, Mr. Whitney said bone is a permanent manure and will impart something every year. Superphosphate is the same material, but so prepared as to give immediate results.

A. S. Fuller—I value bone highly. I have used tons of it, and tons of superphosphate, but on the last I would not pay cartage twenty miles to my place, for I have never seen the least benefit from it. I buried a load of superphosphate to get it ont of the way. I may mistake in this, but I have tried it on four different kinds of soil and this is my experience. The sulphuric acid seems to burn and vitrify the bone. Now if superphosphate is so valuable why have not gardeners and nursery, men found it out; why not Peter Henderson, the great gardener? Why not Elwanger & Barry, the noted nurserymen of Rochester? And why do they send out their teams from four to ten miles for barn-yard manure? William Parry, of Cinnaminson, told me his manure cost about $7 a load, and he used it before any other. Have they not heard of superphosphate? Here, now, is our friend Quinn, I might say he was brought up in a superphosphate factory, and yet he carefully secures all his manure. My opinion is that one might as well throw his money into the Hudson river as to expend it for any superphosphate I have seen.

This called out Mr. Quinn who claimed that he had made money by farming and by buying superphosphate, and declared that he had bought more of it than any man in the room. He offered to experiment with Mr. Fuller, and leave the result to a committee.

Mr. Stone said that when a manufacturer of superphosphate first starts we get an article that gives satisfaction, but soon it gets worthless, and now most of us go on Mr. Fuller's plan, buying manure and composting with muck.

Mr. Williams had used bone with much greater benefit than superphosphate, which he would use no more. He was in favor of composting muck with manure.

N. C. Meeker bought $12 worth of bone, and a less quantity of superphosphate. The first did most good, but half the money spent in stable manure would have given better results.

ORGANIZE A FARMERS' CLUB.

The farmers of Saco and Biddeford have recently organized a club with the following constitution and by-laws, which we copy from the *Maine Democrat*, as perhaps as good a form of organization as can be devised, at the commencement of operations:—

"We, the citizens of the county of York, desirous of promoting agriculture, horticulture and the mechanic arts, and of co-operation in the acquirement and diffusion of practical knowledge pertaining to the farmer's occupation, agree to form ourselves into an organization for this purpose, and to adopt the following Constitution:—

ARTICLE 1. This organization shall be called the 'Farmers' Club, of Biddeford,' and its officers shall consist of a President, ten Vice Presidents and seven Secretaries, who shall be chosen annually in future years on the first Saturday in October, and who shall severally perform the duties usually devolving on such officers.

ART. 2. The meetings of this Club may be held as often as the members shall decide to hold the same, and be governed by the usual parlimentary rules of organized meetings, except as they may be modified by the By-Laws annexed to this Constitution, which may be altered or amended at any regular meeting of the Club by a majority vote.

BY-LAWS. 1st.—The time occupied by any member at one time, in the meetings of this Club, shall not exceed fifteen minutes, unless the speaker is authorized to deliver a formal lecture, or unless the time is extended by unanimous consent."

SMALL FRUITS.

THEIR CULTURE AND USE.

CONSIDERING their means and opportunities, there is probably no class of our people that neglects so many opportunities for the improvement of the intellectual faculties, and the culture of so many things that have a direct tendency to exalt and calm the mind, as that of farmers. As a general rule, the mechanic, although not possessing half the pecuniary ability, supplies his family with amusements, accomplishments or graces, and the means of gratifying a healthy appetite, in a far greater degree than the farmer generally does. If the mechanic has but twenty square feet of land, he will crowd it with culinary plants and a succession of flowers, and send up a Concord or other grape vine to shade the kitchen windows from July suns, and make home attractive to the children, especially when the fruit hangs upon it in all its purple lusciousness. He tends the spot with scrupulous care. Not a weed defiles it. He gives each plant its own share of room,—clipping an over-grown branch here, and encouraging a feeble bud there, until it stands in the beauty of perfection, and yields fruit, or flower, or root, up to its highest power of production. He keeps the soil so fine, porous and light, that it absorbs every dewdrop that is distilled upon it,—drinks every summer shower that comes to its surface, and carries its ammonia to the masses of roots which everywhere fill the ground. If the season is dry, his soil attracts moisture from the air above it every day. If wet, the air passes freely down among its particles, taking heat along with it and stimulating the halting roots.

His garden—if it may so be called—is a little Eden. Every plant in it is as familiar as the faces around his fireside. He is in it when the dews glisten in the sun's first rays. Coming from school, the children pass to the house through the garden. Its attractions are stronger than those of the dinner table. They pluck a fragrant leaf or flower to adorn the hair, or to present to mother or sister, and home, and dinner, and filial love, are all the better for it.

The *merchant* tires of the counting-room, the ledger, the vicissitudes in trade and the money market. He must watch with eagle eye and active brain every pulsation in commercial affairs; he must not let the golden moment slip, and the glittering profits fall into his neighbor's pockets; he must wait, and watch, and snatch the prize at once, or it is lost! So in his narrow circle, shut out from the fields of air, from the world of life and beauty, he continues his unattractive, daily toils. He longs for acres in the country, where he can feel the unpolluted breath of heaven on his cheek, hear the music of birds and running brooks, and the harps among the pines; where he can enjoy amplitude of thought and motion, and see Nature as she changes her scenes and sounds and forms.

Let us follow him into the country. Where do we first find him? In the garden, where God first placed man! It is not so much a conviction of *utility* that leads him there, as a common instinct that the garden will best supply the first wants of the family; that there, the greatest amount and variety may be produced by the least labor. He is not, nor was the mechanic, a farmer or gardener, and yet it is with such that the best examples of skill and profit may be found. The yard of the mechanic, or the limited farm of the city merchant, may be visited and studied with advantage by the professed farmer, the proprietor and cultivator of extended fields. More actual money profit is frequently gained from the former, than in an equal number of the latter. Evidence of this is every year afforded at our annual shows. If we can succeed in producing per acre, at the same rate which they often produce per rod, we shall astoni h the wisest committee that ever sat in judgment on the products of the soil.

Let us imitate their examples in the cultivation of the *small fruits that are adapted to our climate.* A leading one among them is

THE CURRANT.—This fruit is gaining popular favor every day,—still there are hundreds of farms without a currant bush upon them. It is easy of culture, hardy, and will thrive upon a soil that would produce a fair crop of corn. The best mode of getting them is to take cuttings in the spring which have grown the previous summer, and set them where it is intended they shall grow. They should be cut very early, and set as soon as the ground will admit them. They should be vigorous, thick cuttings, and set two-thirds of

their length into the ground. We have never experienced any trouble from their throwing up suckers. It is said that cutting the eyes or buds away from the part set in the ground will prevent this. In setting the cuttings, care should be taken to have the earth come close to them at every part. The after care of the plant is simply to thin out superfluous wood once a year, and give them a fair soil and clean culture.

There are many varieties of currants, but three or four of them are decidedly preferable to the rest.

The *Cherry* is a strong grower, with stout, erect, short-jointed shoots; leaves large, thick, and dark green. Valuable for market and preservation. We have not found it a special acquisition to old varieties.

The *Victoria* has very long bunches of bright red fruit; growth spreading; very productive; hangs on the bushes some two weeks longer than most currants.

The *Red Dutch* is an old standard. It is thrifty, grows upright and is very productive. Fruit large, deep red, rich acid flavor, with clusters three or four inches long.

The *White Dutch* is much like the red in habit; fruit larger; shorter bunches, and of a fine yellowish-white color, with a very transparent skin. Less acid than the red currants, and is much preferred for the table. It is very productive and a little earlier than the red. Mr. CHARLES DOWNING expressed the opinion that the White Dutch and *White Grape* are the best of the white currants. The White Grape has moderately long bunches, berries very large, whitish-yellow, sweet and good, and very productive. The branches grow more horizontal than White Dutch.

May's Victoria, La Hative, Knights' Large Red and Versailles, are among the best of the red ones, after the Red Dutch.

The currant is esteemed for its hardiness, quick growth, beauty in the garden, and for its adaptation to use either in an unripe or ripe state. Picked into bottles while green, and sealed up, we have known them kept until late winter, without any other preparation, —and at that season they are highly valued for pies and tarts. Gathered when two-thirds grown, and stewed and sweetened, they make a palatable conserve, they are also used for tarts and pies, along with cherries or other fruits. When ripened and mixed with sugar, they afford a most agreeable and healthful acid. Perhaps no other fruit is more grateful than this, at the tea-table, after an afternoon of labor in the heat of summer. Currant *shrub* is a popular and wholesome drink. It is also thought an indispensable accompaniment to many dishes as a *jelly*,—and in this form large quantities are annually used.

It has become quite common for families to make wine of this fruit, and there is no doubt but it is preferable to most of those which are articles of commerce. It is sweet, of a very pleasant taste, and in cases of debility, is undoubtedly useful. As a *luxury*, even, it would be less injurious than many things which we eat and drink.

The process of making the wine is simple and easy. The fruit should be ripe, and to one quart of juice, three quarts of water and three pound of sugar should be added. The vessel in which it is placed should be kept full until fermentation ceases, so as to throw off the impurities which will come to the surface. It is as well to allow it to remain in this vessel as to bottle it.

The worst enemy to the currant is the new currant worm. The crop in this region was seriously affected by it last year, and throughout Western New York, the crop was entirely cut off. Before the fruit was half grown the bushes were entirely stript of their leaves, and had the appearance of being dead. What were brought into the Buffalo market, sold readily at $8.00 per bushel. Crops in this region have been more or less affected for several years past. Unless some remedy is found to prevent the ravages of this insect, the prospect is that this delicious and wholesome fruit will be entirely cut off.

TO MAKE FARMING HONORABLE.

The following pertinent remarks on the management of Agricultural Shows and of farmer's boys, and on agricultural writers and editors, were made by Z. Breed, Esq., of Weare, N. H., at one of the evening meetings at the late Fair of the New England Agricultural Society:—

The great question, in my opinion, for us to consider, is, What will elevate the character of the farming community, or at least, the profession of the farmer? It strikes me that there are many things tending to depress the farming interest, and to take the attention of

our young men from the farm, and that in respect to some of these things we are to blame. The responsibility rests upon us as farmers; it rests upon all the agricultural societies in New England; and in a great measure upon the society that meets here at this time.

I have more than once said, in meetings of this kind, that I would rather a man would take a boy of mine, and cowhide him thoroughly, than to give him a colt. Why? Because if you give a boy a colt, nine times in ten, it leads him directly from the farm, and into society that real, honest, substantial farmers will not like to be found in. I have attended this Fair, and stood here upon the ground attending to my own business, but with some eye to the management. Allow me to criticise the management of this large and influential New England Society.

What has been going on, on the grounds of the exhibition? What has been kept most prominent—and what has not been? It was not the boy who trained the steers; it was not the young man who had trained the oxen; it was not the older farmer with his herd of cows. What was it? Why, it was the fast horse. We are governed to-day by the fast horse mania, and this influence is doing more to crush and break down the influence of real, substantial agriculture in New England, than all other influences combined; and if you, my friends, real, substantial farmers as you are, don't stand up here, or somewhere else, and meet this question, it will still go on, and in less years than have already gone over the heads of your society, and yourselves as members of this society, the fast horse interest will control it, or whatever there is left of the skeleton of it.

Is this so? If it is, it is time for us to speak. I know the strength of this influence, for I have seen it. I have been connected with agricultural societies for the last fifteen or twenty years, and have watched it carefully, and I stand here to-day to tell you that there is but one agricultural society in New England where the real, substantial farmer controls it. Our exhibition last year, was the best exhibition in the State, notwithstanding the efforts made to get up a State agricultural exhibition. I mean the society at Hillsboro' Bridge. There, the real farmer controls it. We have a good, substantial farmer as president; we have a practical farmer as secretary, and we look very carefully to our committees, that they be good, substantial farmers. Unless the fast horse gets the control, we shall continue to have a good society. We had last year a string of oxen that reached clear around the track—a half mile track. What was the exhibition of oxen on the track here to-day? All I saw was a few working oxen.

In regard to interesting our boys in farming, I believe in beginning with them early, and giving them work to do. I believe in putting responsibility upon them. Send them to do a piece of work, and if they ask you how they shall do it, tell them to go and do it to the best of their ability; and if they fail, and you lose five dollars because of that failure, they will get experience that will be worth perhaps five hundred dollars to them. How many of us do this? How many of us put a basket of grain into a boy's hands, when we are ready to sow, and tell him to scatter it to the best of his ability, and leave it to his own judgment. I have done it a little, and I have seen the effects of it. We don't manage our boys right. We get up in the morning and say, "John, go and get the oxen, and yoke them;" and, if he asks what we are going to do, we say, "No matter; go and get the oxen;" and the boy goes away with a kind of sour feeling, and with no interest in what is to be done during the day; whereas, if we took him over night, and asked him what he thought had better be done, and interested him in what we proposed to do, he would be ready to go to work in earnest. I don't stand here to brag, but I have pursued this course with one boy, who, after going away into other business, came to me and said, "I can come home and work with a great deal more relish than I can go anywhere else."

There is another thing that has a tendency to reduce the respect of outsiders for the farming interest, or at least for agriculture, and that is, there are so many who are fond of writing upon agricultural matters. I will relate a little circumstance, to show you that an agricultural writer can be mistaken. A certain agricultural editor received a letter inquiring when was the best time to shear sheep. That is a very important matter with sheep-raisers. A man should have a great deal of judgment to find that out. Well, the editor sits down, states the question, and sums it up in this way: "We have had no experience in the matter, never having raised sheep or grown wool; but we presume that when the old fleece ceases to grow, and the new fleece commences, is the right time to shear." So it seems that we need not only intelligent writers, but intelligent editors, for our agicultural papers. I think that an agricultural paper, edited by a practical farmer, a man who can show the hard bunches on his hands, is worth a dozen edited by men who carry a quill behind their ears, and have hands as soft as a woman's. It strikes me it is certain evidence of intelligence in an agricultural editor, to be able to use the hoe, and use it as he ought to use it.

Improving Worn Lands.—The *American Farmer*, of Baltimore, gives an account of the manner in which a poor worn-out piece of land was brought into a high state of fertility. The most unpromising part was a field of blowing sand, so poor that the rye sown on it did not produce the seed the year that the improvement was begun. "Its poverty was still further illustrated the following year by a

growth of common field (black-eyed) peas not exceeding six inches in height. This crop of peas was designed to be made the basis of improvement, but we should expect little result from the small quantity of vegetable matter thus furnished. Nevertheless with it was applied fifty bushels of fresh lime. After this twenty bushels of coarse ground bones were put on and a dressing of three hundred pounds of Peruvian guano, to produce a crop of wheat. It was sown at the same time with clover and grass seed, which after standing two years was followed by corn. After this another crop of peas, with a moderate dressing of bones and guano, brought forty bushels of wheat to the acre. The land was from that time considered improved, and ever since has brought highly profitable crops. All expenses were paid in five years' crops."

CAUSES INFLUENCING THE YIELD OF MILK.

At a recent meeting of the Connecticut Board of Agriculture, when the subject of neat cattle was under discussion, one farmer, a Mr. Weller, made some very pertinent remarks in regard to the care and management of milch cows. He had a dairy of nineteen cows, and he finds that it is important to keep his stock where they will not be disturbed or excited. He gives an instance of the effect of any unusual noise in lessening the quantity of milk, since it was found that the noise from a threshing machine made them fall off twenty quarts per day. We have no doubt as to the truth of this statement, since we have repeatedly observed similar results, in the yield of milk from cows disturbed by any unusual noise.

Many farmers do not seem to understand the fact that fear, or any undue nervous excitement of the cow has a powerful influence in lessening the quantity of her milk, when the most common observation should teach them that it is so. We have seen men used to stock all their lives, who understand and practice milking every day, who will not believe in any such influence, at least if their management of stock be taken as an index. We have often wondered why men who are of a naturally saving disposition, and who would be shocked to see a pint of milk spilled in the milk house, should allow quarts and gallons to be lost in their bad management of the herd in the stable, kicking cows with heavy boots, striking with stools, and keeping the animals in a constant strain of nervous excitement and fear. We have no doubt that the quality as well as the quantity of milk is influenced by undue excitement and nervous agitation. Indeed, in more than one instance have we found milk badly injured on account of the animal being put in a fright, and we do not see why any extreme agitation of the cow should not at all times have more or less influence on the character of milk which she gives, especially if it be drawn during or immediately after such nervous excitement.

Whatever view may be taken upon this question, it must be observed that those persons who are so careful of their milk stock, keeping the animals quiet and having them familiar so as to be easily handled, always succeed best in obtaining extra quantity of dairy products. We have been about a good deal among dairymen and farmers and we have yet to learn of any herd producing an extraordinary quantity of milk when the animals were harshly treated or kept in fear during the milking, no matter what the breed of cows or their extra feed. We have uniformly found the best results where the animals were treated tenderly and no talking or noise allowed while milking. We hear much complaint of late years of poor milch stock, bad luck with herds and low yields of milk, and we are sometimes inclined to believe that the fault is not so much in the *four* legged beasts, for it has come to be quite rare that "help" can be employed that will treat stock kindly unless constantly under the master's eye. We have a State law, affixing a penalty and making it an offence to be caught adulterating milk carried to the factories. We need another law making it a penal offence to be caught abusing milch stock; for if it be true that diseased or bad milk comes from such abuse, then the person offending is in every way as guilty of a crime as he who simply puts water in his milk.—*Utica Herald.*

THE SACRIFICE OF SHEEP.

After giving some instances of recent sales of sheep in Michigan at ruinously low rates, and alluding to previous extreme ups and downs in prices, to illustrate the tendency of the American people to run into extremes, Mr. Sanford Howard, of that State, in an article written for the Lansing *Republican*, says:—

It is a common result in all undue excitements, that the reaction produces the opposite extreme, and an article which has been valued too high, falls too low. This is the case in regard to Merino sheep. They are valuable; their importance to the country is beyond estimation, and the sacrifice of them is to be deprecated.

But the late speculation in Merino sheep was based to a considerable extent on two errors: it looked too much to the production of one kind of wool only, and it attempted to set up, in many cases, a wrong type or model, in reference to the sheep producing this wool. The country requires various kinds of wool, as any one might know who would pay attention to the different styles of goods used. It is to a great extent the glutting of the market with wool adapted only to one class, or to similar classes of goods, that has brought the price so low. We have confined ourselves almost entirely to the production of Merino wool. To be sure it has not all been full-blood, but that

was the kind aimed for. All through the period of depression, good long wool has been in demand at prices almost double those brought by common Merino. And the description of wool adapted to the manufacture of fabrics known under the name of *delaines*, has been, and is now in good demand at more remunerative prices than the finer clothing wools bring, excepting the very finest class adapted to the manufacture of broadcloths. A late Boston report on the wool trade, says: "Combing wools are very scarce, and so much wanted that sellers are able to make their own term." In regard to medium wools, it says: "Owing to the prevailing style of goods wanted for general distribution, the demand for medium wools continues very active, and the market was never so bare of these grades of staple at this stage of the season, as it is at the present time." A judicious diversity in regard to the breeds of sheep kept in the country, by supplying a proper quantity of the various kinds of wool wanted, would have rendered the aggregate production more valuable and more remunerative to producers.

The error in regard to the points or properties of sheep, the propagation of which was encouraged by high prices, consisted in an attempt to produce worthless matter in the fleece —giving to it weight and fictitious value—and in covering the sheep with a skin so wrinkled, doubled and folded, that the fleece was very uneven—the ridges producing coarse wool, mixed with stiff hairs, while the spaces between the ridges produced much finer wool—the different staples alternating over the body of the sheep, according to the ridges and hollows. This greatly debases the quality of the wool. The fleece cannot be sorted, and it must all go into a lot corresponding to the inferior portion. The object should be to produce an even fleece; whatever the grade, the more uniform the fleece, the more readily can its proper place be assigned, and the less labor it is to prepare it for manufacture.

The downfall of speculation will probably break up and destroy the false standard which has prevailed in regard to the characteristics of Merino sheep. Many of the sheep will be swept away, but a remnant, composing those really most valuable, will be saved. A truer standard will be adopted in breeding, and good profits will be realized from the animals.

Drying Pumpkins.—Pumpkins may be put up in the old-fashioned mode of cutting into rings, paring and drying upon poles; or they may be cut into small pieces and dried on plates in the sun or oven. A better plan, however, is to pare, stew and strain them, just as if for pies; then spread the pulp thinly upon earthern dishes, and dry quickly in a hot sun or a partially heated oven. If dried slowly, there is danger of souring. Store in a dry room. Kept in this manner they retain much of the freshness and flavor of newly gathered fruit. The dried pulp should be soaked in milk a few hours before using. In making pies they are greatly improved by stirring the pumpkin in scalding milk, especially if eggs be not used; but without eggs they fall far short of the true "pumpkin pie."—*Germantown Telegraph.*

HORSE RACING IN ENGLAND.

The advocates and apologists of this sport in our country are very fond of referring to the fact that all classes in England, even the "gentry," attend the races in that country, and of commending the system of management there adopted. But however respectable may be the management or the attendance, the results and tendencies of racing appear to be about the same everywhere. What they are in England may, perhaps, be fairly inferred from the following sad notice of one of her most noble patrons of the turf, which we copy from the *Boston Daily Advertiser*:—

The death of the young Marquis of Hastings closes one of the saddest histories in the annals of the English aristocracy. It is but five years since this unfortunate nobleman came of age after a long minority, and succeeded to estates said to have been worth eighty thousand pounds a year. His grandfather, the first marquis, was a distinguished statesman and Governor-General of India; his mother, grandmother and great-grandmother were all heiresses and peeresses in their own right, and he was one of the few persons entitled to quarter the royal arms of Plantagenet. Born to this high position he has been utterly ruined by his passion for the turf. Before he was of age, he was summoned before a magistrate and fined for cock-fighting, and since then he has devoted all his time to horse-racing, in which pursuit he has been the victim of every species of rascality, until his fortune was entirely gone, most of his estates sold, and those remaining heavily mortgaged; and during the last summer he was charged with having attempted to retrieve his fortunes by frauds as gross as any which had been employed to cheat him. The only excuse which can be made for him is that he was a weak young man, early left an orphan, easily duped by the blacklegs who now take the lead on the turf, and entirely unfitted for the position to which he had been born. His misfortunes had preyed upon his health, and for many months he has been seen wandering about leaning on a stick like a decrepid old man, shunned by respectable people, and excluded from society.

The Marquis dies without issue, and the marquisate and Irish earldom of Moira become extinct, while the Scotch earldom of London passes to his sister, Lady Edith Hastings, and the ancient baronies of Hastings, Botreaux, Hungerford and Grey de Ruthyn, fall into abeyance between her and her younger sisters.

—Michigan offers for sale 240,000 acres of public land given to the State by the general government for an agricultural college. The land is all in Michigan.

HOP RAISING AT THE WEST.

THE hop raisers in Wisconsin and in Michigan appear to have come to grief very suddenly. We have been told, during several weeks past, that their crops were greatly injured by lice and blight. But it seems there are more hops in the market than can be disposed of at a remunerative price. Three years ago hops sold for from fifty to sixty cents, and now they are selling in New York from five to twenty five cents per pound.

Having been familiar with the business of hop raising in our younger days, we were called upon two years ago to write upon the subject, with the view of encouraging the farmers in New England to go into the business; but we objected because we did not believe that they would find it for their interest to do so. We did, however, at the special request of many subscribers, publish directions for their cultivation, but have frequently cautioned farmers not to make hops a specialty. Hop raising has always been a very uncertain business, and the price has been extremely fluctuating. Fifty years ago we knew the price to vary from seventy-five cents to eight cents per pound.

We are told the Wisconsin farmers propose to plough up their old hop yards. The same thing happened within our experience in former times. When hops were fifty cents per pound every body rushed into hop raising; when they fell to ten or eleven cents, every body ploughed them up. Now this is unwise. Those who are in the business and have made investments in kilns and bins, and the apparatus necessary for carrying it on, will be able to go on without making any further outlay, while the present low prices will deter others from going into it, and consequently they will have the field to themselves. The profit of hop raising must not be estimated by the result of any single year; but, like insurance, by the results of a series of years. In insurance, the result of one year or of two years may be disastrous, and yet when pursued for a number of years it proves a profitable business.

The demand for hops is limited, and while a short supply always greatly increases the price, a small amount above the demand always depresses it. It would be as unwise for the hop raisers to plough up their vines, as it is for the wool growers to sell off their sheep, because wool is low.

Hop raising cannot be profitably carried on except where the poles are cheap, and the land is good. In New England young trees are worth too much to be cut up for hop poles. They had better stand till they are large enough to cut for fuel or timber. Fifty years ago birch poles were worth $2.50 per hundred, now they are worth six or seven dollars, and maple and oak poles are worth ten dollars, and the poles are an important item in hop raising.

But our great objection to hop raising in New England is that it requires a large amount of manure, and makes no manure in return. The farmer who cultivates a hop field well, so as to get a good yield, has no means left for a crop of corn or grass, and of course his stock soon fails, and he will have no manure to apply even to his hops. Where the soil and climate are such that a heavy dressing of manure is necessary in the culture of hops, the business is perfectly ruinous to the farm—as any farm operations must be in the end, that do not furnish food for stock. Without consuming the crops on the farm, the farmer's business must soon come to an end, unless the soil will yield a crop without manure. In the new lands of Wisconsin we suppose a crop of hops may be raised for a few years, certainly, with little or no manure. But in New England this cannot be done. We could not, therefore, conscientiously advise farmers to go into the business. When some commercial manure can be found that will produce a good crop of hops, and some means of training the vines, besides cutting out the thriftiest and straitest young trees in the woods and forests, our views on the subject may change.

SILESIAN SHEEP.

According to the account furnished for Dr. Randall's American Shepherd, by William Chamberlain, of Red Hook, N. Y., who imported forty ewes and fifteen bucks in 1851, and who has made several importations since, the Silesian family of Merino sheep was established in Wirchenblatt, Silesia, in 1811, by the father of Louis Fischer, the present proprietor. It sprung from stock selected from the choicest flocks in Spain, consisting of one hundred ewes of the Infantado flocks, and four Negretti bucks. Dr. Randal says, "wherever it is most profitable to grow very fine wool, this variety, or rather this family, ought to stand unrivalled. They meet the same want in manufacturing that was formerly met by the Saxons, while they are greatly larger, hardier, and heavier fleeced. Broadcloth and various other manufacturers need such wool, and it is not supplied by the heavy-fleeced American Merino. All who desire to see *all* branches of woolen manufacture flourish in our country will be glad to see the Silesian sheep more extensively introduced."

One of the objections of the manufacturers to the present tariff on wool was that as our farmers did not raise wool suitable for fine broadcloths, hats, &c., it must be imported. Fine wool as well as the coarse combing wools can undoubtedly be raised in the United States. The great cause of the present depressed condition of the wool growing interest in this country is the fact that too many farmers made a specialty of one kind, the heavy fleece Merino, leaving the manufacturers of worsted goods to depend on Canada, and the manufacturers of broadcloths on South America, the Cape, &c., for the raw material.

Mr. Chamberlain gives the weight of five of his Silesian ewes at 115, 140, 130, 115, and 127 pounds, and of three bucks at 145, 155 and 158 pounds. Their external color is dark. The wool of eight months' growth is from one and a half to two inches long. Medium aged ewes shear from eight to eleven pounds, and bucks from twelve to sixteen pounds, unwashed. They are good breeders and nurses, but do not obtain their full weight until four years of age.

Mr. C. S. Woodard of Hotchkissville, Conn., commenced a flock of Silesian sheep in September, 1866, consisting of one ram and nine ewes over a year old, and three ewe lambs under a year old. He writes to the Boston *Cultivator* that in 1847 he raised nine lambs from his nine ewes, the clip of wool was fifty-three pounds, which in consequence of its fineness sold for 85 cents per pound, making $45. One lamb was sold for $6. Estimating the other eight lambs at the same value, and including $31 obtained as premiums at Fairs, he makes an aggregate income of $130.05 from thirteen young Silesian sheep. With this result he was so well pleased that he has since increased his flock, by purchase, to forty-two in all.

For the New England Farmer.

CROSSING BREEDS OF SHEEP.

In your issue of October 17, you have a leader on the so-termed Anglo Merino sheep. This breed was the result of an attempt to graft the fleece of the Merino upon the carcass of the Leicester. You quote Lord Western as saying that the wool was equal in quality to the Merino. Now, sir, we have no doubt that Lord Western thinks so. But we are satisfied that Lord Western does not know much about the quality of the fleece of the Merino sheep. What he says about the carcass of the sheep and the weight of his wethers we are satisfied is correct, and also what he says with regard to the weight of the fleece. We do not know whether Lord Western has succeeded in producing a permanent type of this peculiar grade or not; but this we do know that the cross is not new in America. We have seen large quantities of wool produced by a cross between both Leicesters and Cotswolds, which is a very desirable class of wool for some kinds of combing and a most splendid delaine wool. In 1852 Isaac King, Esq., of Palmer, Mass., had a flock of Leicester ewes which were aged; the wool was coarse, slippery, cotted and hairy. Combing wool was not in demand then as it is now, but there was a good demand for delaine wool. Mr. King had sold his wool for a number of years to the Hamilton Woolen Company of Southbridge. Thos. Whitaker had the charge of the sorting at that time, and bought the wool. But Mr. King having bred so long from his ewes without renewing his flock, till his wool was nearly run to hair again, Mr. Whitaker refused longer to buy his wool, without he took measures for improving it. After consultation and at the suggestion of Mr. Whitaker, Mr. King went to Vermont and bought as long a stapled Merino buck as he could find, to which he turned his ewes, and the result was one of the best delaine wools ever raised either in America or England. It was not as fine as the Merino, nor as long or

coarse as the Leicester; but what the Leicester lost in length of staple, the Merino made up in fulness of fibre, so that there was no loss in weight of fleece. At that time Mr. King got more for his wool than he could obtain either for the Leicester or Merino. Such wool to-day is worth fifty-six cents per pound. His lambs sold as readily to the butcher, and for as good prices as formerly; his wethers weighed when slaughtered, at two years old, from one hundred to one hundred and fifty pounds. Others have crossed the Cotswold with as good results; and much of the wool raised in the State of Maine is from crosses of the Merino with coarse wools. This wool during the present season has been in good demand, and has brought good prices.

The Southdown and Merino produce a most excellent cross, and so far as size and extremes are concerned are not so objectionable as the cross with the large, long wooled sheep; and so far as wool is concerned, the Southdown and Merino produce an excellent delaine quality. The ewes also are excellent nurses, while the mutton is nearly equal to the pure Southdown. Prof. Miles of the Agricultural College, Michigan, has experimented to a considerable extent, and the result of his efforts is that he produces a wool more valuable than either the pure breeds; more hardy lambs and mutton little inferior to the pure Southdown. The wool is not so fine as the Merino, but it is longer; neither is it so coarse and fuzzy as the Southdown. We would have it understood, however, that these cross-bred wools are not so valuable as the pure bred Leicester and Cotswold at the present time; but we think the time is not far distant when they will be as valuable as either. MENTOR.

Boston, Nov. 11, 1868.

For the New England Farmer.

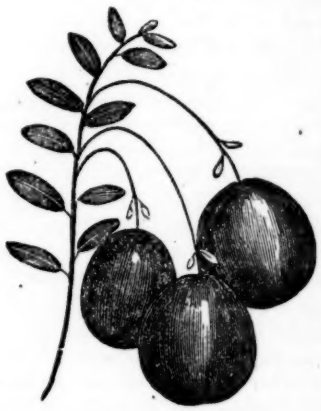
CULTIVATION OF CRANBERRIES.

The several inquiries in regard to the cultivation of the cranberry which have recently appeared in the FARMER, have induced me to believe that twenty-five years of experience in the cultivation of this fruit, may furnish material for an article which possibly you might think worthy a place in the columns of your valuable paper.

To the individual who desires to engage in the cultivation of this fruit, the first and most important question to settle is the character of the soil and the nature of the surroundings necessary to secure a good crop. To those who have given the subject but little attention, a tract of land which is filled with water throughout the season is considered one of the most favorable locations. But this I believe to be a mistake. From observation, I am convinced that the soil during the months June, July, August and September, should be thoroughly drained from twelve to eighteen inches below the surface, except at such times as it may be necessary to flow it for a few hours to kill the worms or protect the vines and fruit from frost.

The most favorable location I believe to be where the soil is peat from one to several feet in depth and where the surroundings are such that during the summer months the water can be thoroughly drained off at least one foot below the surface, and at the same time such that the water can be let on in a few hours in a sufficient quantity at any season of the year to cover the surface from four to six inches in depth; and also in the vicinity of a good sand hill. He who has a location like this, if it be but a few acres, possesses a very valuable piece of property, and any individual with ordinary capacity for business may in a few years obtain from it an income sufficient to place him in comfortable circumstances.

In preparing the soil the surface should be removed down to the peat; it should then be covered with at least three inches of sand, or when this cannot be readily obtained I have found fine gravel to answer a very good purpose.



Branch and Fruit of the Cranberry.

In selecting plants care should be taken to use only such as are known to produce good crops. I have found that while some varieties produce four bushels to a rod, others on the same soil and with the same care, produce only one bushel. The month of May is undoubtedly the best time to transplant the vines. The water at the time should be nearly even with the surface and kept so for a week or ten days, and then gradually drawn off. The vines should be set singly, about six inches each way. The first season great care should be taken to keep out all grass and weeds,—after that if the location be a good one and the plants properly set, but little labor will be required to keep down the grass; if possible they should, during the winter, be

kept covered with at least two feet of water, nor should they be left entirely out of water until all danger of frost in the spring is over; for, what is very singular, while the blossom buds are able to withstand our coldest winters, a very slight frost the last of May will kill them, and entirely ruin the crop. This is a fact not so generally known as it should be. When the worms make their appearance, the flowing of the land for a few hours is sufficient to destroy them. If during the month of September there should be any days which promise to be followed by frost, the water should be let on and the fruit thus protected. But the length of this article will not permit me to enlarge. E. HERSEY.

Hingham, Mass., Nov. 10, 1868.

REMARKS.—Even after "twenty-five years' experience" few men could condense so much information into so little space as this communication occupies. While we thank Mr. H. for his valuable facts and suggestions, we would assure him that the brevity of "this article will permit him to enlarge," to the great benefit of the readers of the FARMER, on this or any other subject.

STOCK BREEDING.

At the farmers' meeting at the Maine State Fair, on Wednesday, Mr. Thomas S. Lang, of Vassalboro', gave a very interesting address on stock breeding, which we copy from the Boston *Journal*. It is worthy of careful perusal:—

The farmer labors for subsistence that he may supply the necessaries and comforts of life, and add thereto those pleasures which are the reward of earnest toil and thoughtfulness. If you admit this, then comes the question, how shall we best acquire what we deem necessary or pleasurable? I have used the word thoughtfulness; it is applicable. By thoughtful, careful study of nature, and the laws which govern the production of all things, we shall be led to satisfactory results.

Thus to breed stock with success, we are governed by general laws of reproduction. It is an aphorism that "like produces like," and this is in the mind of every farmer's boy a tacit acknowledgment of the law of compensation or return, which governs every conceivable condition of life. As you breed, such will you produce. The question may arise, in this strictly true? I believe it, and if wrong, desire to be set right. Some of you who are stock breeders may say that this, the rule of "like producing like," is not absolute. I am aware it is not, in detail, and one often finds circumstances quite puzzling in his experience. But what staggers one, said he, is to find two fine animals bred together, producing marked qualifications of preceding sires or dams. These are facts which no breeder doubts who has given attention to his business. Mr. Goodale, with all accepted authorities upon this subject, urges that, to breed successfully, you must breed in the line.

First, the breeder ought to know what he desires to accomplish before he takes the first step toward breeding. What are the natural advantages, said Col. Lang, of the location in which you are placed, is the first question for you to decide. Is it better adapted for breeding cattle, sheep or horses? If you select cattle, which breed is best adapted to your farm or location? If for beef, that which furnishes the most pounds of beef in the shortest time is the one. If, however, you desire to make profit from the dairy, a different class must be selected. If your lands are high and rocky, they would be adapted for sheep and the more hardy breeds of cattle. The Short-horn or Dutch cattle cannot be as profitably raised upon such land. This matter of adaptation is an important one, and not studied with sufficient care by those farmers who breed stock beyond the necessities of home.

Having selected the locality, now comes the selection of the animals of the breed desirable. If for beef, there can be no question that the breed that matures earliest is the best. Time is an important point. Suppose we fix that an average amount of food given an animal up to three years of age yields 1500 pounds of beef, how much is gained over that animal which requires four or five years to arrive at the same weight? Here comes the advantage of breeding to a given qualification. It is a question of vital importance.

I have spoken of time as important to be considered, and this may lead you to remember the law of compensation referred to, which, if true, would lead one to suppose that the 1500 in three years would take a corresponding amount of food, as if fed to an animal in four or five years. This is not true. What I wish to convey is, simply, that the three-year-old has characteristics to assimilate more food to beef in less time. You find certain times or conditions in an animal's life that it seems almost impossible to lay on flesh, feed them ever so well. Then, why not find a class of animals that, with a given amount of food, lay on a double amount or nearly so from constitutional habit, health, vigor and power of assimilation?

If you work your animals, you draw upon animal economy, and extra feed must pay for labor. A combination of milking, labor and beef qualities, seems to be the aim of the majority of farmers. "We cannot have the bread and eat it," is a proverb well understood. He who breeds to milk capabilities,

must to a certain extent lay aside others, as asserted. Again, it is well known that stock bred to milking properties admit of different classes—for instance, a Jersey cow gives you milk, the cream of which, in some instances, is fifty per cent butter, while the cream from some cows will not make butter without much effort, and some not at all. I have several instances of this in my mind; yet these cows grew the finest calves. The Dutch stock, for instance, have been mostly bred for cheese making; they do not excel in butter making, but excel all others in growing their calves. The best milk for butter is poor milk to grow stock.

A point worthy of discussion in this connection, which my own small experience endorses, is, that what forcing a calf or other young animal has the first six months, especially the first three months, determines his subsequent value. I know that what is not done for a colt in the first eight months, cannot be remedied afterward. And on this point I will urge breeders to spare no pains or extra expense in feed or care of the dam four months before foaling, and for six months after, if she feeds the colt so long. While the bone is forming in the colt, give it all that will be of benefit to it. In some the bone attachments become more positive, and such animals are less likely to meet with trouble incident to weak, underfed animals, ringbones, spavins, curbs, &c.

I do not assume to urge this point upon you as notional ideas of my own, but as the experience of better observers than myself. While in Europe, in 1867, I visited several times, a large breeding establishment where twelve different breeds of cattle were kept, and in conversation with the herdsmen this point was dwelt upon as very important, especially in the breeding of representative animals of stock, as a horse or a cow. The herdsman said, "Feed strong while a calf. If he will take the milk of two or three cows, give it. You will be paid. In other words," said he, "hoe and weed and water the plant while it is growing, if you care for its perfection." A few weeks since a letter from J. Keene Richmond of Kentucky, who has expended so much in bringing to this country from England and Arabia the finest horses in the world, urges the necessity of feeding the mare and foal that the growth of the colt may be as great as possible while the bone is forming.

Having selected the *class* of animals one wishes to breed, the selection of the *animal* is of the first importance, for in the finest herds or flocks of carefully bred animals are to be found those which do not represent their class, and are incapable of transmitting the characteristics desired. The safe way is to select representative animals that do breed in line. A defective animal may breed fine progeny, but the progeny may breed the defective sire or dam's qualifications. Therefore the breeder should be sure of a sire as nearly perfect as possible in physical qualifications, and also one that has proved his get to be so. The more generations of fine animals in the line, the more certain of success in breeding them. However good a sire or dam may be, selected from mixed stock bred out of line, the chances will be often against you to breed like sire or dam. I speak more particularly of horses, but believe it is equally applicable to other stock.

Were I to select horses to breed as close to perfection as possible, I would select only such sires as were bred in a long line of careful, judicious breeding, to the qualifications desired, either for speed, the sixteen-hands carriage horse, or the horse for draft and work, endeavoring, at the same time, to select color, style, movements and temper, in each generation, as far as possible; then I should feel quite sure of success. I would go further, and never accept a dam who had been previously bred to a defective horse, as his defects often crop out in the subsequent progeny, although by a good sire in the line desired.

I have in my stable a chestnut gelding, sired by Gen. Knox, who is black, and the gelding's dam is white, and the grandsires on both sides are white and black, yet the gelding is the color, marks, temper and gait of the sire of a colt dropped prior to her being bred to the black horse, and a very close resemblance to that colt by the first sire. I have seen repeated instances of like results in the course of my breeding.

Another point desirable in the sire or dam, if we wish to reproduce him, is thorough health and nervous energy. Let his constitutional powers be as perfect as possible. I often hear surprise expressed at the uniform gait given to colts by the stallion Gen. Knox. I attribute the marked similarity to the splendid health and determining energy of his constitutional habit. Impair it, and those mares who possess energy will blot out his influence in their progeny.

Ill temper is always to be avoided, as it unfits an animal for efforts of high speed or draft, and is always unsafe. How many breeders carefully consider the points necessary to success in their efforts, but accept such chances as may be thrown before them, at a small price, or such sires as are of easy access?

In selecting a mare for breeding a fine horse, select such as will be sure to sustain the colt after its appearance, and as the sire as a rule gives general configuration and motion, let her add to and sustain them by her nutritive powers, giving constitution and energy. Let her temper be good, yet filled with nervous susceptibility, bearing in mind that the most nervous animal becomes the most tractable and easily trained or educated. If I could fix the matter, no mare who had a constitutional defect should ever be bred. A dam having spavins produced by light muscle

attachments, or light muscles, or ringbone, or a cup produced by an ill-formed leg, is unfit to breed. Mechanical injuries, not produced by constitutional defects rarely do harm. No dam, imperfect in form or stature, of bad temper or bad feet, should ever be bred, and if a certain color is desirable breed to that.

Before closing I wish to refer to the term thoroughbred as accepted by the public. I believe in thoroughbred animals, and in their power to reproduce their kind, but I do not believe in assuming that animals are worth breeding because they are recorded in the herd or stud book for several successive generations. I have seen many worthless recorded thoroughbred animals, very far from well bred; and also I have seen many thoroughly bred animals which could not be found in the stock or stud book. I approve of the record by all means, but the thorough breeding does not make the record. The time may come when men of wealth and leisure and culture will give their money and time and research to this interesting subject. I do not know of a more noble undertaking for such than to advance the interests of a State like ours in this respect,—an interest to be felt in every household in Maine.

AGRICULTURAL FAIRS IN KENTUCKY.

From the accounts which we have seen of the Fairs in Kentucky, we infer that they have been unusually successful the past season. The following picture of one of these exhibitions brings out a social feature which may be too much wanting in our New England Shows, and may afford farmers and their families a hint worth considering. It is from the Lexington *Home Journal*:—

No people in the world probably, understand better than Kentuckians, the art of getting up such interesting and instructive exhibitions and of extracting from them the largest amount possible of pleasure. They think of them, and prepare for them months before hand; every animal or article to be shown is taken in hand and brought to the highest state of perfection, and every member of the family, and often an entire neighborhood feel a personal interest and pride in the success of this entry. Then, when the Fair is held the inducements to draw a large crowd are numerous and strong. As hospitality is a characteristic of our people, every family and frequently several families will unite in their culinary arrangements, and at dinner time such bounteous repasts are spread —consisting of every substantial and delicacy that could be thought of or provided—as would make a royal feast look poor by contrast. Such joyous junketing under the spreading greenwood trees, it is well worth a day's travel to witness and several day's ride to participate in. Never did Epicurus or Heliogabulus or any of the ancient lovers of good eating have opportunities to titillate their fastidious palates at such glorious symposiums. The hospitable host and his estimable wife, while entertaining assembled friends, invite all who may need such attentions to their tables. Everywhere people are enjoying themselves. It is the eagerly anticipated annual respite from business confinement, the daily toil and household cares, and young and old make the most of the festive occasion. For pure unalloyed enjoyment, commend us to these autumnal gatherings in Kentucky.

In contrast to the above the *Country Gentleman* publishes a communication from a "highly intelligent and well informed farmer," in which a Northern "Modern County Fair" is described, by commencing with the following sentence:—

"*Almost every body was there—except plain farmers.*"

How shall a more general attendance of "plain farmers" be secured at our New England Fairs?

EXTRACTS AND REPLIES.

WARTS ON CATTLE.

I have a steer which has a wart growing on the top of its head, and can I, through the columns of your paper learn how to do away with it?

Wayne, Me., Nov. 10, 1868. A SUBSCRIBER.

REMARKS.—In doctoring warts it is desirable to understand something of their nature, shape, &c They are sometimes removed by tying a small hard string or cord around them, and occasionally tightening it till the wart comes off. Sometimes they are cut off, and the roots cauterized by a hot iron. Mecurial and other dangerous preparations are also successfully used. As a sample of "cures" we copy the following from the *N. E. Homestead*: "If lunar caustic be rubbed on the surface after the tough end is pared well, a cure is generally effected. It should be repeated several times, if necessary. One drachm of muriatic acid added to three drachms of muriated tincture of iron, the acid nitrate of mercury, one drachm of arsenic added to one-half ounce of strong nitric acid, all of them will accomplish the object. Compound alum water, juice of sumach, garlic, milk weed, strong sugar of lead water, &c., have some reputation as remedies. The strong acids will, however, do best, where the scissors or string will not answer.

If the acids are used, the parts close by the wart should be smeared with oil or lard, to prevent the acid from spreading and making a sore. If it is seen to be working too deeply, soda and pearlash water sopped on, will stop further action."

BOTS IN HORSES.

We have received a copy of a pamphlet entited "The Farmer's Friend, the Horseman's Guide, and Horsemanship Made Easy in one Lesson, by Dr. H. S. Rarey, Columbus, Ohio;" also a communication from the same writer, dated at Perkinsville, Vt., on Bots in Horses, in which some "new ideas" are advanced. He regards bots as a part and parcel of the horse—"one of his natural organs," as

much so as his heart, lungs, eyes or ears, and equally inseparable, except by the surgeon's knife. The colt before it is foaled and the horse at five or twenty years of age have the same number of bots —500, "neither more or less." They are "placed in the stomach to take up the food as it enters that organ in a rough and coarse condition, and to grind and convert it into chyle and gastric juices for the digestive organs!" Thus bots, in effect, save the horse the time and labor to which animals are subjected that chew the cud. Instead of being injurious, therefore, bots are an essential and an economical part of the digestive apparatus, and one might as well attempt to physic away a horse's kidneys as his bots.

The theory of veterinary writers that bots are hatched from the nits or lice on the legs of horses, finds little favor with Mr. Rarey. He says that horses in warm climates where the Gad fly is unknown, and in stables where it is not admitted, have as many bots as those exposed to it. He regards the idea that a bot changes to a fly as absurd and contrary to the laws of nature, and declares "it is impossible to make a fly out of a worm."

If the last remark of our correspondent is a fair specimen of his knowledge of natural history, we think he is hardly qualified to assume the position of teacher, and should advise him to review the evidences on which he bases his "new ideas" on the subject of bots in horses.

TO PRESERVE THE FERTILITY OF UPLAND FARMS.

In the NEW ENGLAND FARMER, October 31, I read the report of the discussion by the Irasburg, Vt., Farmers Club of the question, "How can an upland farm be cultivated and kept from running down?"

I propose to answer that question from my own experience. Arrange the stable for cattle with a trench behind them, sufficiently tight to hold water, sixteen inches wide and four inches deep. Then put in the trench muck or loam, at the rate of a wheelbarrow load to five or six animals every day, and clean the stable daily into the barn cellar or under a shed, where it will be out of the weather. If hogs are kept upon the farm, put a cellar under their pen and supply that with muck, and clean it out as often as it gets thoroughly wet. For each pen of two hogs that are full fed with milk, use a cart load of muck and as much bedding every week. As much muck or loam should be placed under the outhouse and sink-spout as will save all the liquids there. The barnyard should have muck enough to save everything dropped in it in the shape of manure. If all this is faithfully done, I know, from about a dozen years' experience, that any good land will produce hay and satisfactory crops, and increase in fertility as long as this system is followed.

The right application of manure I think very important, but I suppose no man will wish to be told how to do that. W. S. GROW.

Westboro', Mass., Nov. 9, 1868.

REMARKS.—Why do you think so? There is scarcely any operation in farming on which practice and opinion are more unsettled than in regard to the application of manure. In England some farmers steep their manure in water, and by means of pipes or casks apply it in a liquid form. Some get it out in the spring, others in the fall. Some shovel it over two or three times, others apply it as it comes from the barn. Some plough it in, others prefer the harrow. Some cover it deeply, others lightly. Some apply it in the hill, others broadcast it. If your farm is constantly increasing in fertility from its own resources, under your system of manuring, we can warrant you as attentive a set of readers for what you please to say of your mode of applying it as your remarks above on making will secure. Probably the knowledge you now possess would have been worth considerable to you twelve or fifteen years ago. Will it not be equally valuable to those who are now young, or who are lacking the experience you have had? Please give us your views of the right way of applying manure.

SAUSAGE MAKING.

Will you please to tell me, through the FARMER, the best mode of making pork sausage. By so doing you will greatly oblige MARINDA.

Pittsburg, N. H., Nov. 4, 1868.

REMARKS.—We hand this request over to the women folks who know how to make good sausages. But as there are different ways of doing the same thing, and as probably the great object of Marinda, who, we presume, has her own way, is to learn how others perform the operation, we copy from the *Country Gentleman* some directions which were given by several housewives in reply to a similar inquiry. A lady in Missouri says, "The fat portion of the pig should be mixed with the lean at the rate of one pound to four, if desired to be very rich; if not, use less of the fat. Pass the lean meat twice through the sausage mill; chop the fat very fine, as grinding reduces it to a paste and it is lost in frying. Those who like it smoked can stuff it, but an excellent way to preserve it until spring, say June, is to fry it in balls the size of an egg. When done, lay it in jars, covering with melted lard, and tying down with strong paper." This lady says a larger quantity of sage is needed than an unpracticed hand would suppose, but instead of giving the amount of sage salt, red and black pepper she uses, she advises each one to fry and try until it suits those who are to eat it. The tenderloin makes better sausages than the lean of other parts.

Another one says, "Sausage to suit a dyspeptic cannot be made without stuffing. The small entrails of hogs must be well cleaned and scraped until all the fat is removed, turned and soaked in brine twenty-four hours; pour over the prepared meat hot red pepper tea sufficient to moisten the mass, then stuff them and hang in a smoke house and smoke two days only, with cobs or hickory wood."

The main art and secret, this writer says, is to proportion the seasoning so that no one article will predominate. But as to the amount of seasoning, these authorities differ somewhat. A correspon-

dent of the FARMER,—M. A. R., of Fitzwilliam, N. H.,—gave a few years ago the following rule:—To ten pounds of meat put one gill of salt, one gill of sage, and one-half gill of pepper; or if preferred, half the quantity of sage and a half gill of summer savory. L. L. Pierce, East Jaffrey, N. H., gave as a rule for each pound of meat, three teaspoonfuls of fine sage, one and a half of salt, and one of pepper, (three-fourths black, one-fourth cayenne.) Two of the writers very nearly agree in the rule that 30 pounds of meat should have nine ounces of salt and four ounces of pepper, while a third recommends a much larger quantity.

Sausage meat may be preserved by putting it in new cotton cloth bags a foot or so long and two or three inches in diameter, which after filling are dipped in and coated with melted lard. When used the bag may be sliced off with the meat.

CRANBERRIES IN VERMONT.

Is there any kind of cranberry that will prove profitable as far north as the middle of Vermont, if set on the right kind of land? I feel confident we have the right piece of land, if I may judge by what I see in your column of Extracts and Replies, the reading of which I have found useful and instructive. W. B. K.

West Fairlee, Vt., Nov. 13, 1868.

REMARKS.—Mr. Eastwood says in his book on Cranberry Culture that "On many of the vast steppes of Russia, the cranberry abounds, and even amid the wastes of Siberia it is occasionally to be met with. Indeed, the Russian cranberries proved for a long time to be no inconsiderable portion of the exports of that country." We should apprehend more difficulty from the difference between the soil of Vermont and of Cape Cod, where the cranberry grows to perfection, than from the difference in climate, especially where the meadow can be flowed at pleasure. Beach sand, or sand somewhat similar to that on the ocean beach, and peat or muck, seem to be the essentials to the success of cranberry cultivation. You will find a valuable article on this subject in last week's FARMER.

CRANBERRIES.

I have a meadow through which a stream flows, and by which it can be flowed. I wish to be informed how the land should be prepared and whether it can be seeded from berries, or is it best to transplant vines? Please answer through the FARMER, which has been of great advantage during the past two years. A SUBSCRIBER.

Whitinsville, Mass., Oct. 24, 1868.

REMARKS.—Mr. Breed's article in the FARMER of the same date with this letter answers these questions pretty fully. Different meadows are prepared in different ways. Sometimes the whole surface is removed to the depth of a foot or less, affording a large amount of valuable material for the compost heap; sometimes the grass, bushes, &c., are cut, stump, roots, &c., dug out, and the whole burned over in a dry time; sometimes the whole surface is covered with sand, beach sand being the best. Vines are preferred to seed, as the growth from planting or sowing the berry is slow. In October, 1846, Mr. Addison Flint, of Reading, Mass., planted an acre by crushing each berry between the thumb and finger and placing it just under the mud, single berries in a hill three and a half feet apart, and also sowed broadcast a number of bushels of refuse cranberries the following spring. No berries till four years afterwards, and then very small; the next year, of good size and worth picking.

SORE TEATS IN COWS.

I have a good new milch cow that has sore teats soon after she comes in. If you or any of your subscribers can tell me the cause and cure, you will oblige an old subscriber. G. H. K.

Sterling, Mass., Nov. 16, 1868.

REMARKS.—Some cows teats are more liable to be sore than others, possibly from a similar cause that some people's hands are more liable to crack and chap than others. There may also be some impurities—humors of the skin or blood—that produce soreness. Mr. H. Rounds, of Chepachet, R. I., recommended in the FARMER, some time since, as a salve for sore teats on cows, one pound of the bitter-sweet or yellow-root, simmered fifteen minutes in half a pound of lard, applied twice a day, after being strained and cooled.

ASHES INJURIOUS TO APPLE TREES.

I noticed in the last FARMER, in "Jack's" reply to "J. J. T.," that he put from one to four quarts of ashes around his trees to keep off mice. Now I will state the result of an experiment in ashing trees. Two years ago last June, I put from one to two quarts of ashes to each of about eighty trees, of different sizes from one to three inches in diameter, to keep away the borer-fly. On examining the trees the next spring, I was surprised to find that about one in eight was killed, and on one-half or more the bark was dead from one-fourth to three-fourths the way around the tree, where the ashes laid against the trunk. I removed the ashes and banked up the trees with earth. Those that were partly killed struck new roots above the dead spots and now they are doing nicely. I would like to hear through the FARMER if others have had their trees injured by putting ashes against them; if so, please reply, as I have some thousand or more that I was intending to ash, but dare not. W. V. TAINTER.

South Carthage, Me., Nov. 17, 1868.

STEAMING FODDER FOR CATTLE.

I have an idea of a process for the preparation of fodder for stock which I have not had an opportunity of testing practically, and as I may not have such opportunity at present, I offer it to your readers for what it is worth, as a theory or a mere suggestion which may possibly lead to improvements in the utilization of materials which are now mostly suffered to go to waste.

About 1863, a machine was invented for cottonising flax. It consisted of a strong cylinder, connected at one end with a steam boiler; at the other it was closed by a hinged lid. The cylinder was filled with flax, and steam let on at a high pressure. This was kept up till the bark was heated to the same degree with the steam. The

cylinder was then opened, and the sudden removal of the pressure caused the water in the bark to expand into steam with explosive force; tearing the woody fibres apart, and rupturing the cells.

Now my idea is that coarse fodder subjected to such heat would be cooked through, and the cells of the stalks so completely ruptured as to better prepare it for digestion than the finest grinding and subsequent cooking could do, at about the cost of cutting, alone, by steam. It would put the butts of stalks, thistles, straw, and other inferior fodder in the best possible condition for the animal to extract the nutriment therefrom. Grains and roots may be treated in the same way.

"Pop corn" is an illustration of this process. It is well known that the varieties which pop well have a layer of oil next the surface, which confines the water inside till it acquires expansive force enough to burst the kernel.

Grain might be fed in the straw; thus saving threshing and grinding of small grains, the husking, shelling and grinding of corn, and the cutting of roots. Another advantage is, that it would destroy the vitality of weed seeds, and fit them to nourish the animal.

Any one who believes in steaming fodder, and who has a steam engine, with strong boiler, could test my theory at no very great expense. H.

West Addison, Vt., Oct. 7, 1868.

MANAGEMENT OF FAIRS.—ORLEANS CO., VT.

After a brief notice of the Fair of the Orleans, Vt. County Agricultural Society had been printed, we received from our attentive correspondent, an account of the exhibition, with some suggestions upon the management of Fairs, which we think should not be lost.

The Society in this country was organized last year, and devoted only one day to the Fair. It was plainly seen that after the entries were made, the committees had a very short time to examine animals and articles, and award premiums; therefore this year a two days' exhibition was held—the intention being to have all entries made the first day before two o'clock, so that there would be plenty of time for thorough examination by the committees and by spectators. All animals and articles were to be exhibited both days, and although it seemed at first inconvenient to require cows and other cattle to remain all night away from home, it was found that the inconvenience was imaginary rather than real, as good hay was supplied by the Society free of charge.

The track was used for the entertainment of the spectators, and particular hours were set for the grand cavalcade of all horses entered for show, and for the exhibition of each class separately. The classes were stallions of three different ages, matched carriage horses, matched work or farm horses, single drivers, saddle and walking horses. But all this division of time and classes resulted in failure, as when the cavalcade came on the first day at one o'clock, just to amuse the crowd, the various committees on horses went at the work very spiritedly and awarded all the premiums in about an hour, as the horses passed around all together. So it was thought best to have some trots on the second day, and over $100 was given for speed. This, in my opinion, was a mistake in management, for it is just as exciting to see horses trot for a premium as for a purse, and it should be understood that horses must work when on trial for premiums. Is it too much to require a carriage horse to go at the rate of ten miles per hour, a saddle horse the same, and a walking or a work horse to give good evidence of ability? It should be understood that a premium horse is not only ornamental but useful and has bottom as well as style.

As there seemed to be a desire to have all cattle shown at a proper time, out of their stalls and in the cattle rings, a rope was extended around a plot of ground three or four rods in diameter, but the rain prevented its use. It is evident that a committee can judge of the relative merits of animals when standing together better than when quite a distance apart in different sized pens.

By proper management it seems that the interest of the crowd in all kinds of stock can be gratified, and farmers should take pride in their stock as by it comes nearly all their income.

There are in the county, Durham, Devon, Ayrshire, Dutch and Jersey cattle, and it would doubtless be a satisfaction to spectators, as well as for the interest of exhibitors, to have some of their animals so well trained that they could be taken around the track in groups, each breed together.

The 510 entries of our Fair consisted of so good a variety, that the horse stalls, cattle yards, sheep pens, and floral and Mechanics' Hall were well filled.

All exhibitors' names were on the cards attached to the articles. A different course may be advisable in some cases, but in a local Fair, where exhibitors take care of their articles, their names soon become well known, even where it is attempted to withhold them.

Our experience has demonstrated that it is nearly labor lost to appoint awarding committees beforehand, as they do not generally attend and act, and the managers, in practice, are obliged to select men from the crowd.

The receipts and expenses were nearly equal, being about $700. The new Fair ground is a very fine one and prosperity seems before us.

Z. E. JAMESON,
Secretary Orleans Co., Agricultural Society.
Irasburg, Vt., October, 1868.

MERINO AND COTSWOLD CROSS.

"Constant Reader" of Alstead, N. H., asks, Can I make it profitable to use a pure blood Spanish Merino buck with my Cotswold ewes?

I am satisfied he can, but at the present time, when pure bred combing wools are so scarce, it would be much better to use a pure bred Cotswold or Leicester. The wool from these pure breeds is worth from five to ten cents more than the Merino cross, and your lambs and mutton would be worth more. But you ought to raise your lambs at the present time of scarcity of this class of sheep for stock purposrs. Do not alter your ram lambs. Pure bred rams are worth too much. Save your ewe lambs also. They are worth more for stock than the butchers will give. Do not let them have one. At present, your Cotswold ewes are too valuable to be crossed with the Merino. The time may come when it will be a desideratum. Such has been the case, but it is not so now.

Boston, Nov. 21, 1868. MENTOR.

DISPOSITION OF OUR CROPS.

The crops of 1868 have been harvested, and now we are to determine our incomes by the manner in which we consume or otherwise dispose of the raw material we have secured.

The whole secret of success lies in our skill to feed the various kinds of farm stock, for growth, work, milk and meat. With so many different animals to feed, and for such a variety of uses, an amount of knowledge is required that few possess. We, individually, know but very little, just nothing at all. We guess at some things and act accordingly, and succeed only by accident. We do not like to work in the dark as we are compelled to, but desire to know with a degree of certainty

the end from the beginning. Therefore, we appeal to you, Mr. Editor, and through you to your correspondents, at this time—the first of the feeding season—for directions to transmute our forage crops into gold,—for that is the end of all labor. Don't give us directions that will result in killing the goose that laid the golden egg.

By way of setting the ball in motion, we would give as our opinion that hogs should be fatted while the weather is warm; that they should be "done" when it is cold enough to freeze in their troughs; that old corn should be used rather than new; that it should be ground *very fine;* that if you would have hogs grow fat as fast as possible, give them raw meal mixed with water or milk, and quite thin, so that they can drink it,—not forgetting the dry comfortable place they need while they are manufacturing your corn into pork. If you give them a wet, cold place, they will use much of your corn to dry and warm it. F.

Mast Yard, N. H., Oct., 1868.

PLANTS FOR A NAME AND DESCRIPTION.

Can you, from the enclosed dried specimen, tell the name and qualities of the plant, and whether the berries are poisonous or not. It is the opinion of some that they are, and I have hesitated to set out the plant in my grounds, although I think it a pretty shrub. There is also a shrub here having bright red berries at the point of junction of the leaf stalks with the branch, which berries stay on until near mid winter. Would the two be safe to set around a house where there are children? Yours, for the dissemination of knowledge and beauty, WM. MCALWYN.

Sandwich, Mass., Oct. 19, 1868.

REMARKS.—Mr. Joseph Breck, to whom your note and the specimen received were submitted, has kindly furnished the following reply:—

The specimen of the plant sent is so broken up that it is almost impossible to recognize it. I think it is MESPILUS CANADENSIS; synonym: PYRUS OVALIS, or *Swamp Pyrus*, which is a shrub of moderate size, very common in swamps, and conspicuous for its white flowers in the early part of May. Fruit dark blue, of the size of Whortleberries; ripe in June. It is not poisonous, and is a desirable plant for the garden among other shrubbery. Plants to be recognized should be sent when in bloom, with leaves on a small branch or twig. The other shrub mentioned by your correspondent producing red berries in the axil of the leaves is without doubt *Prinos Verticillatus*, or *Black Alder*, which is a great ornament to our swamps and low ground at this season of the year. You will find a full description of it in *Breck's Book of Flowers*, page 416. In modern times, this plant has been transferred from the genus *Prinos* to *Ilex*.

Yours, &c., J. BRECK.

The following is the description alluded to in "Breck's Book of Flowers," an excellent work of 480 pages, price $1.75, which ought to be accessible to every cultivator of flowers, and should be in every town and neighborhood library:—

ILEX VERTICILLATA.—(*Prinos Verticillatus*)—Black Alder.—This indigenous shrub, so ornamental in low grounds and swamps in autumn, is worthy of a place in every collection of shrubs. "It is a handsome shrub, five or six—rarely ten or twelve—feet high, with crowded branches and leaves, conspicuous for its bunches of axillary blossoms and scarlet berries, remaining late in the autumn, or even into the winter. The recent shoots are clothed with an apple-green bark, which, on the large branches, turns to a pearly gray, and, on the older stems, is of a polished and clouded dark color, whence the plant derives its common name." The flowers are white, and not very ornamental. The berries are of a bright scarlet, covering the twigs, the size of peas, in bunches of two or three, and remain long on the bush. The flowers expand in June; the berries are ripe in September. The Black Alder will require a peaty, moist soil.

APPLE TREES ON AN OLD ORCHARD.

I have two acres of land all walled and in a good location for an orchard, but it has been used for that purpose. The trees are now dead or nearly so, and what I want to know is whether a new orchard in the same place will do as well as in a new one, provided I take the old stumps out and manure it well. JOHN BATCHELDER, JR.

Laconia, N. H., Oct. 19, 1868.

REMARKS.—We do not suppose that apple or other trees will do as well to follow those of the same kind, as they would in a different location. Nature teaches us thus much by her well known system of rotation, by which a different kind of tree usually succeeds those which have grown to maturity on any particular lot of land. Mr. Cole compares a tree to a tethered horse. No one would expect a horse to do as well where another horse had starved to death, as he would on a new spot. Still with hay and provender enough a horse will flourish almost anywhere; and with similar care, trees may be made to grow in soil impoverished by the same kind of trees. If our correspondent will make a compost of a large proportion of muck, good soil, sods, woods mould and leaves, some ashes and just enough "agricultural yeast" or manure to leaven the whole lump, he can make apple trees grow on the site of an old orchard.

THE FALL WEB-WORM, OR CATERPILLAR.

In your remarks following the queries of your correspondent Jack, in the Monthly FARMER for September, page 435, you describe exactly a worm that has been quite numerous about here this fall. I find no better way to get rid of them than to pull them off with the hands and tread on them, or burn them where they are very numerous. I have destroyed them by the bushel, but of what use is it, when my neighbors on either side regard them with perfect indifference, until their orchards look as though a fire had run through them? If such things are not nuisances, what are? I move our legislature pass a law requiring people who *will* keep caterpillars to pay a license, the same as for keeping dogs. J. W. G.

Cummington, Mass., Oct. 28, 1868.

REMARKS.—The old objection to agricultural papers that they were filled with the writings of "Fancy Farmers" and "Big Bugs" generally, is one for which practical farmers themselves were responsible, because a few years ago the editors could induce nobody else to write. Farmers are now outgrowing this false modesty, and agricultural papers are improving in value as fast as practical men are acquiring the habit of communicating

not only the facts of their experience, but the thoughts and suggestions which occur to their minds while working and reading. In a note to the above communication the writer says, "I never did such a thing before, and can't say as I ever want to again, and shall not be surprised if it goes into the waste basket." An ancient writer in a very sensible letter addressed to certain friends in the city of Rome, said, "Let every one of us please his neighbor for his good to edification." Now, friend "J. W. G.," when assured that the twenty thousand readers of the NEW ENGLAND FARMER want you to please them to edification, have you the right to consult your own pleasure, merely?

A BED OF MARL.

On visiting a neighboring town recently, where the land needs enriching very much, I found an extensive bed of marl, composed of, or filled with, minute shells. Would it make a good dressing for the land, or would it pay better to burn it and thus convert it into lime, and then apply it?

Roxbury, Vt., Nov. 2, 1868. W. I. SIMONDS.

REMARKS.—The term marl, like the term muck, is applied to deposits of very different composition. Some beds of muck and some beds of marl are much richer in fertilizing matter than others. We know of no better mode of ascertaining their value than by careful experiments on the land. It is said that the value of marls depend on the carbonate and phosphate of lime, alkaline salts, gypsum, &c., which they contain. It may be well to burn your marl, as proposed, but we should advise a thorough trial, without burning, in connection with other manures. Will those who have used marl similar to that described by our correspondent give him the result of their experience? We understand that our Northern marls are quite different from the green sand of New Jersey, which is often called marl.

CREEPERS AGAIN.

In view of the hint you so *good-naturedly* give Messrs. Goodwin and Crosby in your issue of November 7, I will commence by saying I have no fowls for sale, and never raise them for sale, but I have had some experience with the Creepers. Several years ago, during the rage of the hen fever, my utter disgust with the workings of that disease, and with the long legged creatures it introduced, led me to look about for the old fashioned Creepers. They had been so completely thrown in the shade, that it took a long time to find them. At length I succeeded in purchasing a young rooster. I crossed him with the Black Poland, the Bolton Gray and the Seabright, all of which produced valuable fowls.

I consider the Seabright cross the most valuable fowl I have ever known. They are very beautiful pets, being very tame and docile. They never scratch and do no harm in any garden, but are the most industrious bug hunters in the world. They are constant layers; only one in six having offered to set during the past year. They lay large eggs for the size of the bird. They are the best of mothers, never wandering from home with their chicks, and never trailing them through wet grass. In fact, they cannot be induced to enter standing grass at any time, but have great sport in the grasshopper line as soon as it is cut. The cost of keeping them is next to nothing. The crumbs from even a poor man's table will feed quite a flock. They fatten easily, and when fattened are very plump and handsome, and their flesh has an excellent flavor. I believe the creepers are among the best of our native breeds, and I believe our native breeds as good as any breed we have when properly crossed. D. L. TOLMAN.

Marlboro' Depot, N. H., Nov. 7, 1868.

IRON PIPE WELLS.

Will you please inform me through the FARMER where I can purchase a pump, where by boring the ground you can pump water. S. P. A.

Bellows Falls, Vt., Nov. 3, 1868.

REMARKS.—Our impression of this way of obtaining water is not very favorable. An iron tube or pipe, with a sharp point, and perforated near the lower end with holes to admit the water, is forced into the ground by pounding upon the upper end, to which additional joints are screwed on, as the pipe sinks, until water is reached, when an ordinary pump is attached by which the water is raised. Sometimes a fountain is reached which forces the water up to or near the surface. Parties who profess to understand the business have travelled about, in this section, for a year or two past, boring for water in this way, and we have seen several "wells" of this kind in operation, and have known of several failures. We do not know where the necessary fixtures can be obtained, and we doubt whether it would be advisable for one not acquainted with the process to undertake the job.

SCRATCHES IN HORSES.

I have a valuable horse so badly affected with the Grease as to be wholly unfit for use, and I appeal to the FARMER for a remedy. If you or any of your subscribers can give the desired information they will confer a great favor. R. P. T.

Canaan, Vt., Nov. 1, 1868.

REMARKS.—The first thing is to wash the parts affected perfectly clean with soap and water. This is so important that we have known people to advise walking the horse in a stream of water as a cure. The bowels should be kept open by laxative food or some mild medicine. A wash of beef or pork brine is often beneficial in the first stages. In worse cases, a wash of one ounce of chloride of zinc, four ounces of creosote, in four quarts of a strong solution of white oak bark; or an ointment of gunpowder mixed with lard or fresh butter; or an ointment of half a pint of linseed oil, two table spoonfuls of fine salt, same of sulphur, same of saltpetre, and one ounce of turpentine, well simmered together.

TEMPERATURE OF CREAM FOR CHURNING.

Can you inform me through the columns of the FARMER what temperature is the best for cream while churning, and oblige a SUBSCRIBER.

Fisherville, N. H., Oct. 21, 1868.

REMARKS.—In our own practice we have adopted 62° as the proper temperature. During the winter season our milk and cream is kept in a cel-

lar where the temperature is uniformly about 62°. In the statement addressed to the Committee on the Dairy of the Norfolk County, Mass., Agricultural Society, which accompanied the butter which took the first premium, and which we published in the Weekly FARMER of October 10, Monthly, page 522, Mr. Cheever says that his "churning is always done with cream at a *known* temperature, varying from 60 to 64°, according to the outside temperature." Others prefer a rather lower temperature, say 55 to 60°.

PROTECTING TREES FROM MICE.

As I have five hundred trees to protect from mice the coming winter, I am interested in the inquiry of "J. T." for an effectual wash for this purpose. But as no one responds, I will give him my method, which I shall practice till I hear of a better one. I put around the trunk of the tree from one to four quarts of common wood ashes as late as I can before winter sets in. Besides keeping away mice, the ashes promotes the growth of the trees the following season. JACK.

West Chesterville, Me., Oct. 29, 1868.

REMARKS.—Those who have not ashes, may feel safe with a somewhat larger quantity of earth or sand, of which a cart-body full will answer for a large number of trees.

FELTED WOOL ON SHEEP.

I wish to ask you or some of your readers, what causes wool to felt on sheep. Is it caused by their not receiving proper care during the winter? Please give us the cause and the remedy and oblige yours. JACK.

Jay, Me., Oct. 29, 1868.

REMARKS.—Probably our correspondent overlooked the reply in the FARMER of August 15, of Mr. Z. E. Jameson, of Irasburg, Vt., to a similar inquiry. He said it was generally owing to the want of oil or yolk in the wool caused by sickness or poor feed, and sometimes by the yolk being removed by a drenching rain or a thorough washing, &c. We refer you to the whole article alluded to.

THE SEASON AND CROPS IN WASHINGTON CO., VT.

Our hay crop matured first and was more than an average, and hay is plenty at ten dollars per ton. Oats were generally light. What wheat was sown generally gave a good yield of excellent quality. Rye very light. Corn matured very early, and though, on account of wet weather, it was not all planted till the first of June, we have a splendid crop. Potatoes are good and a heavy yield, almost entirely free from rot. Most branches of farming, with the exception of sheep raising and wool growing, have been very successful, and now we are making preparations for stern winter again. The other day I gathered forest leaves for bedding, and I think if my brother farmers could see the pile myself and hired man have stored, many of them would go and do likewise, provided the storm that is now falling dries off before winter sets in. They are easily gathered, as one needs only a common manure fork and a wagon, which if not large enough, may be extended by putting on extra side and end boards. The storm that commenced Saturday night continued without intermission till Sunday night, and this morning the ground is covered with snow.

Roxbury, Vt., Nov. 2, 1868. W. I. SIMONDS.

AGRICULTURAL ITEMS.

—It is said that 39,440 seeds of weeds, by actual count, have been found in a pint of clover seed.

—For what reason does a duck go under the water? For *divers* reasons. For what reason does he come out? For *sundry* reasons.

—It is now claimed that large orchards breed insects and diseases after the manner of large cities, and that the remedy is small farms and small orchards.

—Every farmer should have a compost heap. Collect every kind of fertilizer, and to prevent any from liberating the gases, keep the whole covered with earth or muck.

—Mr. Noah Paine, of Chelsea, Vt., has a heifer that was two years old on the twelfth day of September last. On the first of July last, she calved, and before that time she had given six hundred and five quarts of milk.

—The first premium of $50, offered by the Strafford county, N. H., Fair for the best cultivated farm in the county, has been awarded to J. Frank Lawrence, Esq., of Lee. Mr. C. W. Rollins, of Rollinsford, received the second premium of $25.

—Noah Whipple, Jr., says in the *Boston Cultivator*, that warts on cows' teats may be readily removed by washing frequently with alum water made by dissolving two ounces of alum in a pint of soft water.

—The ponies or horses peculiar to China are used only for riding, and by mandarins when upon official business. All agricultural work, ploughing, irrigating, and the working of rice mills, is done by the buffalo.

—The *California Farmer* says that a single firm in the wine making business own and hire vineyards containing 700,000 vines. Another firm expects to manufacture half a million gallons of wine.

—Luscious pears, grapes, figs, peaches, melons plums, strawberries, lemons, limes, &c., were among the fruits mentioned as in great abundance in the San Francisco market October 15. Pears three to six cents per lb., peaches five to twelve cents, grapes four to ten cents per lb. for natives.

—The *Journal of Chemistry* says that two or three drops of carbolic acid to a bottle of ink will prevent mouldiness; and about thirty drops added to a pint of water used for making paste will prevent its moulding. Carbolic acid, however, is a poison and should be used with care. It is very destructive to the lower orders of vegetable and animal life.

—The California *Farmer* of October 15, says: The grain market remains very inactive; no foreign demand, and nominally no export demand. Those who think the market will advance should go into the country and see the warehouses, full to their utmost capacity, and see the great quanti-

ties in the fields, and on the wharves at the landings there, and upon the wharves here, and remember also that there has been already 150,000 tons sold.

—After having tried several other prescriptions for removing warts from a horse, and having offered five dollars for a cure, Mr. S. N. Tabor, of East Vassalboro', informs the *Maine Farmer* that he has been entirely successful, by dosing the animal with chopped cedar boughs, given in his grain, also washing the warts in a strong decoction of cedar.

—The *Canada Farmer* mentions a horse owned by M. Yoder, of Springfield, Ontario, which is believed to be over thirty years old and is still fat, plump and handsome. Twenty-five years ago he was a dashing roadster. The *Farmer* suggests the propriety of having prizes at Agricultural Fairs for the best old horses, as, while any one may have a good colt, it is only a good, kind horseman that can show a sound, active old horse.

—The *Turf, Field and Farm*, the organ of the Fast-horse men, calls for a national convention of horsemen, to correct the "growing evils" of the trotting turf. It says "the case is a bad one, the disease is eating into the vitals, and the remedy to be effectual must be national as well as prompt. Another year of trickery and fraud, like the one over which the autumnal leaves are dropping, will check the tide,—turn the current in a different direction."

—We learn by the *Country Gentleman* that Mr. Warren Percival, Vassalboro, Me., has recently sold the following Short-horns: Sheridan, bull calf, sired by Gen. Smith, 5711, out of Kitty, to Silas Hawes, of Union, Maine; to A. C. Chandler, of New Gloucester, Me., cow May Day 6th, by Duke of Manlius, out of May Day—also bull calf Roan Star, by Monarch, 5964, out of Perfection, and heifer calf Red Lady 2d, by Gen. Smith, 5711, out of Red Lady.

—A Florida paper, the *Gainesville Era*, says: "During a recent ride of five miles through a section of the country once famous for the abundance of live stock, we counted only twelve head of horned cattle, four hogs, and not a single sheep. The diminution in their numbers is alarmingly rapid, and a very few years will witness their almost entire disappearance. Beef must continue to increase in value, and will soon reach Charleston and Savannah prices.

—A correspondent of the *Country Gentleman* furnishes the following as a partial list of Fish Breeding establishments. In New York, Mr. Seth Green, Mumford; Stephen H. Ainsworth, West Bloomfield; Mr. William Nicoll, Islip; Mr. Aaron S. Vail, Smithtown. In New Jersey, Dr. J. H. Slack, Bloomsbury. In New Hampshire, Mr. Livingston Stone, Charlestown. In New Brunswick, one—connected with the one at Charlestown, N. H.

For the New England Farmer.

RECIPROCITY, AND COMBING WOOLS.

Having read your remarks on the reprocity treaty, and also those by Dr. Randall, and having had some experience in wool, I may, perhaps, be able to throw a little light on this subject; believing, as I do, that should the reprocity treaty take effect to-morrow, and should wool from Canada be brought in free of duty, it would not affect the price of combing wools of this market.

At the same time I do not recognize any duty on the part of the United States to legislate for the relief of the British Provinces, by giving them access to our markets. If they really desire the benefit of our markets, and if the British goverment desire that they should have these benefits, let them become annexed to the United States; and then, being one of us, they would have an equal right to all the benefits belonging to the seveal States of this Union. But so long as they remain a part of the British Empire, I do not see what we have to do with their distresses, only so far as they may appeal to our individual benevolence.

Establish the reciprocity treaty, and so far as wool is concerned, it would be equal to annexing the Canadas, inasmuch as both the States and Canadas do not produce an amount sufficient to supply the wants of our manufacturers. At the present time, Mr. Walworth, the wool buyer for the Pacific mills, and Mr. Moffit, buyer for the Atlantic Delaine Company of Providence, are in England making purchases. So long as England is the principal long-wool producing country in the world, and the only country, apart from Canada, that would compete with our farmers in its production, the price of combing wool in this country will be the price at which it is sold in England,—duties and expenses added; and so long as Canada is the only favored country allowed to have free access to our markets, in which to sell its wool, the Canadian farmer will be just as much protected by our tariff as our own farmers are.

I am opposed to the renewal of the reciprocity treaty, not because I think the wool-growing interest of this country will suffer, or that the production of combing wools in this country will be retarded by it, but because the Canadian farmer pays the duty now, and should the treaty be renewed he would pocket it.

In 1865 and 1866, under the reciprocity treaty, combing wool was not in any more demand than now, yet Canada wool was worth from ten to twenty cents per pound more than it is at the present time. This year, the Canadian farmer received from twenty-three to twenty-five cents per pound, gold, for his wool; then, he received from forty to forty-five cents, gold, and the value of gold then was but little higher than now. I am acquainted with a person who not a year ago bought

50,000 pounds of Canadian wool in New York, which had been brought in under the reciprocity treaty, and for which eighty-five cents had been offered and refused. It was purchased for sixty-seven and a half cents per pound last March.

I hope I have succeeded in making myself understood on this point; that although the importer of the Canada wool ostensibly pays the duty, yet really the Canadian pays it, because he sells his wool for less. Our own farmers will receive no loss so long as the production of both Canada and the States keeps below the consumption.

There is a lamb and mutton question involved in this matter, upon which subject I intend some day to say more. MENTOR.

Boston, Nov. 16, 1868.

For the New England Farmer.

SUMMER CARE OF SHEEP.

In your issue of Nov. 13, I notice an article by "Zen" of Milton, Me., entitled "Roving habits of coarse and fine wool sheep," in which I think he does the fine wools, if he means the Merinos, a great injustice.

My experience has been quite the reverse of his, for I have invariably found the Merino a very quiet breed, and it is very rare for one of my flock to leave my pasture.

My custom is to have the fence around my pasture in good condition before the sheep are turned into it in the spring, and kept so through the season. My sheep are visited, called together, counted, and furnished with a little salt by myself or some trusty person twice each week till they are sheared, and after that time once a week, through the season.

In this way they are kept domesticated, and will come a considerable distance to meet the shepherd at the sound of his voice, when he calls them.

It is natural, I believe, for all sheep to ramble over their whole enclosure nearly every day; and if they are turned to pasture with dilapidated fences, they would be very likely to mistake another pasture or field for their own; and then if the boys and dogs were set after them they would be likely to run for their lives, and if compelled to jump they would do so, and in that way would soon learn the art, and would most likely practice it voluntarily and become a nuisance to the whole neighborhood.

I have not had any experience in keeping coarse wool sheep, and there are but few kept in town; but these few have been an annoyance to myself and many other farmers. Their roving habits are such that they have rambled over several farms; and it is the opinion of many that they have done more damage during the season than they were worth in the spring.

They do not confine themselves to each other's company, like the Merino, but scatter about in small squads, or perhaps one sheep and her lamb will ramble off together, and be found a long distance from the pasture where she was put. If their owner was made to pay promptly for all the damage they have done, I think he would not be likely to invest in a similar flock again.

These sheep may not be a fair sample of the long wools, and I certainly hope they are not; and I have reported them only as an off-set to the troublesome Merinos of "Zen."

I have no doubt that most breeds of sheep may be so domesticated by kind treatment as to be easily kept within their proper enclosure, but in order to do so let no one attempt to keep more than he has plenty of feed for with good fences and no dogs.

L. D. CORLISS.

Orford, N. H., Nov. 16, 1868.

CAN WE GROW WHEAT?

That it is possible to raise wheat, and still not destroy the ability of the soil to produce it for the next generation; that it is practicable to go on improving it in fertility, while we biennially take from it a crop of this most desired cereal, no one who has read the progress of improved agriculture in England, will think to doubt. The truth is, we have settled down into the idea that it is best to crop our land with wheat till it fails to return the seed we sow, and then to follow the setting sun to the land of the Indian and buffalo. By tilling the soil, we mean killing the soil; and when the wreck is accomplished, we heartlessly seek out another spot which shall share the fate of our last victim.

Is agriculture as applied to wheat-raising, a lost art, or is it that our American farmers have not yet found it out? We believe the latter. We are inclined to think if no virgin plains had laid west of the Alleghanies, that wheat would still be raised between them and the sea. Good farming comes of necessity. Agriculture, like any other art, must be studied, written about, and talked over. We must bring all the appliances of science to our aid, and put ourselves in the way to profit by the experience of those who have achieved a success in the branch we have been attending to.

Now few of these things have been done in this country in respect to wheat. We have had conventions of sorghum growers, fruit growers, wool growers, grape growers, and of poultry fanciers; but when have we had a convention of wheat growers on American soil? Nearly every other department of agriculture, as well as horticulture, has an organ devoted to its interest; but with the exception of a stray article which occasionally appears in the statistical pages of the Department of Agriculture, or a chance column in some of our farming papers, nothing is written on the culture of the grain that forms "the staff of life." More printer's ink is wasted on some black cap

raspberry, or some new fangled strawberry, than is used in all the wheat discussions for a decade. In short, if it were not for the bag of wheat which we sometimess see tucked away in some back corner of the Floral Hall at our County Fairs, and the occasional newspaper article referred to, we should almost think that the subject of wheat raising was becoming ignored altogether.—*Prairie Farmer.*

REMARKS.—This is putting it pretty strong for a paper printed in the "Grain Emporium of the World," which Chicago is sometimes claimed to be. But is our agricultural literature as deficient as the pen of this ready writer charges? We have on our shelves a stately volume of 432 pages entitled the American Wheat Culturist, by S. E. Todd, devoted exclusively "to the grain that forms 'the staff of life;'" Mr. Klippart, Secretary of the Ohio Board of Agriculture, has also written a volume on this neglected plant, and in many agricultural books and papers, no inconsiderable space is devoted to the cultivation of wheat. On referring to the Monthly NEW ENGLAND FARMER for 1867 we find the index points to thirty-seven pages for articles on wheat, and we presume that it is incidentally alluded to in many other places in connection with other subjects, and probably about the same prominence has been given to the subject in our columns during the year now drawing to a close. We agree with the *Prairie Farmer* man that the growing of wheat ought to be "studied, written about, and talked over" more than it has been, and we invite all New England farmers who have succeeded in raising wheat without "killing the soil," to speak out, and help us talk over the subject. The success that has attended the cultivation of wheat in New England during the few past years has been sufficiently encouraging to justify the assertion that wheat raising is not "a lost art" even among the farmers "between the Alleghanies and the sea."

WALKING HORSES.

The best gait a horse ever had for everyday use, is a good walk. It is a gait that not one in ten possess. Colts are not trained to walk in all of the Eastern States. Young America wants more speed. Kentucky has more good walking horses than any other State, for there horseback travelling has long been in fashion for men and women, over a country where muddy roads at times rendered any other gait impossible, and so horses have been bred for the saddle and trained to a walking gait. This is also the case in all the Western States, and perhaps might have been so in New England when our grandmothers rode to meeting on a pillion behind our grandfathers. But one-horse wagons have put horseback riding out of fashion, and now a good walking horse is more rare than one that can trot a mile in 2.40.

At the Springfield, Mass., Horse Show of 1860, the writer was one of the committee to award prizes to the best walking horses. Out of seventeen entered, the committee found but one which was considered a first-rate walker. This was a Morrill mare, which walked five miles an hour with ease. Two others were fair walkers, and the rest knew no gait that could be called walking. At the New York State Fair the same state of facts was again developed. A letter from Wisconsin says: "I think horses trained to walk fast would be a greater benefit to our farmers in general than fast trotters, as almost all their work has to be done with a walk." I once knew a man in Massachusetts, who, before the railroads were built, kept from two to four teams at work on the road, and never allowed them to trot at all, and made the distance in quicker time than his neighbors, who made their horses trot at every convenient place. He said that when a horse commenced to walk after a trot he walked much slower than his common gait if kept on a walk, and thereby lost more than he gained. Will farmers think of this and pay more attention to walking horses?—*Farmer's Home Journal.*

"GRAIN-KILLED" HORSES.

Some years ago a man lived in this vicinity who had kept livery stables both in New York and Philadelphia, and he owned one of the poorest grass farms you would wish to see, but well watered. He would buy horses in those cities from gentlemen that kept but one horse,—horses that had had a good deal of work on the road as family horses, and were fed very highly of grain, and had been in the city some four, six or more years, and were what horsemen called grain-killed. He would bring them up generally in the spring, and let them run at pasture, and I have seen from six to ten horses in a field for weeks together, where you could not see a green thing, unless some weed or brier that the horses would not eat. He would keep them just alive for eight, twelve or more months, as the case might be, but at least eight months, and put them in the stable about Feb. 15th or March 1st, having let them run in the barn-yard after snow came, but housed from storms. He would begin feeding a few carrots at first, and then add grain after being ground, but never feeding very highly, and in a few weeks the horses would look full, with smooth coats and well filled between the ribs, and in May or June

he would take them back to the city and sell them as horses just from the country,—the old owners often buying the horse they sold, because the horse *could not* eat grain enough to look as fine and soft coated as he did when he returned to the city, when at pasture or in the yard. At this farm the horse was kept just alive, but had little or no work. I tried it on one or more horses I have owned, and found it very beneficial, especially to horses that were over ten years of age. I think that eight quarts of grain given to a horse, after some six months of this treatment, will have a better effect on the looks of the hair and feelings or life of the horse, than twelve or fourteen quarts did before; remember, I speak from facts. You look at coach horses, in your city, which you know have been there six or eight years, with a good deal of work, and the coachman allowed to feed all the grain he chooses, and also as little hay, and see if I am not sustained in what I write.

Grain-killed horses are always gaunt between the ribs; the hair stares and looks dead, and the flesh feels hard and dry; the horse is dull and stupid—not playful, and looks sleepy about the eyes. Treat him as I say, and, my word for it, in a few months he will be his old self, playful at the halter, prompt to the bit, and look sleek. To give less grain, more damp hay or green food, carrots, potatoes or something of that kind in moderation is my advice and practice.—*James Thompson, Rose Hill, in Country Gentleman.*

WINTERING BEES.

Mr. P. Lattner of Dubuque Co., Iowa, writes to the *American Bee Journal* as follows:—

I have seen a great many plans in the *Bee Journal* for wintering bees, but I prefer the one I adopted last winter to any that has been suggested. Out of seventy-six hives wintered (among them some pretty weak colonies) I did not lose one. Whereas, winter before last, out of sixty-eight hives wintered on their summer stands, I lost thirty-eight, and the remaining thirty were weak. I came to the conclusion that what is good to keep ice in summer is good to keep bees in winter; and I went to work and built an ice house, 16 feet by 20, and 7 feet high. I used six-inch studding siding on the outside, and lined with inch boards inside; put a tight floor overhead, and then filled all around with sawdust. I also put six inches of sawdust above, on the floor. I had in each corner a four-inch opening, or chimney, through the floor, but not through the roof; and a double door in front, which kept the room perfectly dark. We had pretty cold weather last winter, yet water would not freeze in that room. Towards spring, it was getting rather warm inside, and I noticed that some colonies were becoming uneasy. I then left the doors open after dark and shut them again before daylight—which operation made all quiet.

I can winter a hundred colonies in that room, and it did not cost over forty dollars to build it.

My bees commenced swarming the first week in June, though one swarm issued on the 28th of May. I only let them swarm once. Six or seven days after swarming I would cut out all the queen cells, and insert one Italian in place of black ones. I have now one hundred and thirty-five colonies; and, I think, when I put them in winter quarters, I shall have Italianized every one of them.

I use the Langstroth hive, and prefer it to any other form. Any one must acknowledge that the frames are easier handled than in any other hive—besides the grand place for surplus honey, which no other hive can equal.

As for wintering bees out of doors, I do not believe in it any more. We must provide shelter for all our stock in the winter; why can we not afford to do the same for our bees?

My bees are doing well, and some of the first swarms have filled six boxes of honey. Those with frames on the top have done still better. I believe bees will store double the quantity of honey in frames, as compared with boxes.

BOARDS AND NAILS FOR FODDER.

Farmers are sometimes annoyed by their cattle gnawing boards, bones, &c. We do not propose to grind up "boards and nails for fodder" and give it to animals with such a perverted taste. We were thinking merely of how much fodder might be saved in many barns by a dose of boards and nails administered, not to the cattle, but to the barn in which cows and other animals are kept. Not long since, while looking over the premises of a neat and thoughtful farmer, and admiring his warm stable, pig-pen, and shed for manure, he remarked "that little funny article in your paper, about boards saving hay, written by somebody [Rufus Nutting, Esq.,] in Randolph, Vt., was worth a year's subscription to me. It is strange," he continued "that so few farmers in this cold country provide a warm place for their stock." Those who read Mr. N.'s article will remember that he estimated that in many cases two dollars worth of boards and nails might save in expense of fodder, and by the increase of the milk of say five cows, fifty dollars in one hundred winter days. After the ends and back side of the stable are made sufficiently tight, he recommended that a few boards be hinged on in front, so that in severe

weather the stable may be entirely enclosed, or left open when the weather is milder.

For closing crevices in underpinning, &c., the *Prairie Farmer* recommends a mortar of lime and sand or ashes, using hogs bristles instead of plastering hair, to give it greater tenacity, and fill this into the cracks with a trowel. But in this as in other things, where there is a will there is a way, and those who believe that fodder can be saved and health promoted by shelter and warmth, will find little trouble in securing them, by stopping the cracks and shutting out the cold so that manure will not freeze where the cattle lie.

THE CALVES.

There is no part of the farm stock more liable to be neglected in fall than the calves which have been raised during the summer. They are often left out late in the season, without shelter, to pick at the frozen grass, and by the time cold weather sets in, are reduced in flesh and cannot be wintered without extra nursing, and even then one or more are often lost before the time for turning to grass.

Calves should enter upon cold weather in good condition and with vigorous health. Shelter and an abundance of nutritious food should be provided so soon as grass becomes frost-bitten and poor, and cold storms of sleet and rain begin to be frequent. They demand the finest and best hay grown on the farm, and should have in addition a little oil meal, bran or oats. Roots will be found an excellent feed for calves during the winter, in addition to the oil meal above mentioned. Some prefer oats, say a pint or a little more per day to each animal. We have seen calves wintered through in fine condition upon hay and oats as above, but we prefer a mixture of oil meal and bran, and if it can be had, a daily feed of turnips or carrots.

Calves that are well cared for, that have warm shelter and that get a sufficiency of nutritious food, not over fed, continue their growth during the winter, and will usually come in milk when two years old, which is a matter of some importance to the dairyman. In our experience in raising stock we find by far the most important period to give close attention to the animal is during its first year. Neglect during that time is almost always attended with loss. A poor, runty calf, poorly wintered cannot be expected to be in milk the next year, and at three years old is no better for the pail than the two years old that has had generous treatment and care from its birth —yet the former has cost considerable more than the latter. Many farmers make no estimate of the cost of raising stock, and hence do not properly appreciate the difference between heifers coming in milk when two and three years old.

Some object to putting calves in stanchions, preferring to let them run loose in the stable. We have never seen any ill effect from stanchioning calves, but, on the contrary, believe there are many advantages from this mode of management. Less room is occupied when they are thus confined, and they with their stable are kept cleaner than when allowed to run loose. They are more easily fed, especially when any extra food is given, and each one gets its share and is not driven about by master or stronger animals. By giving them a run in the yard every day they get sufficient exercise, while the early breaking to the stanchion and the handling daily renders them more docile and more easily managed as they grow older and come in milk.—*Utica Herald.*

THE EMPIRE MILK-COOLER.

The *Utica Herald* gives the following description of a little article which was exhibited at the Herkimer county, N. Y., Fair this fall, for the purpose of cooling milk.

The milk as it is poured into it, passes in a thin circular sheet, about the thickness of wrapping paper, for a distance of about three feet, between two thin metallic surfaces, over which cold water is constantly passing. By this means the animal heat is entirely removed, and the milk reduced, gradually but immediately, to any degree of temperature desired. A thermometer being attached to the machine, having its bulb immersed in the cooled milk, enables the operator to watch and control the process. The milk after being cooled is collected together and passed out through a tube, to which a faucet is attached, into a pail or can. It is claimed for this little affair, which a child can carry in his hand, that it will cool milk as fast as four or five men can milk. Gardner B. Weeks, the Secretary of the American Dairymen's Association, has examined it, and recommends it for general use "in private dairies, as well adapted to put the milk in admirable condition for sending to the cheese factory or market." The machine can be readily taken apart and cleaned, with the greatest facility.

AYRSHIRES IN VERMONT.—Several farmers at Milton, Vt., one of whom is Mr. J. B. Robinson, have united in the purchase of eight or ten head of Ayrshire cattle, for the improvement of their stock, and that of the neighborhood. One of them is the bull Commodore, purchased from C. Baxter, Burlington, Vt., a descendant from Sir Wm. Logan's importations. Eight cows and calves were bought of J. P. & T. A. Dawes, Lachine, near Montreal, from stock imported by the Montreal and other agricultural societies and by the late Mr. Dods.—*Co. Gent.*

COTSWOLD SHEEP.

In connection with the above comfortable looking group of Cotswold lambs raised by Charles Corliss of Haverhill, Essex County, Mass., and sold by him with his whole flock, some two years ago, we published a portion of a report made by Thomas Whittaker, as Chairman of the Worcester County Committee on Sheep. It was published in the Report of the Secretary of the Massachusetts Board of Agriculture for 1866. After alluding to the greatly increased demand for combing wools, both in this country and England the committee say:—

"The raising of this kind of wool involves two other very important points, the production of mutton and lambs, which, at the present time of scarcity of live stock, are of vital importance to the whole community; and it is the combination of these three points, wool, mutton and lambs, which has rendered sheep husbandry so profitable to the English farmer, and has given him the exclusive privilege of furnishing this class of wool for the world, and the English manufacturer the exclusive privilege of producing imitation Alpacca dresses for the ladies of the world. That it can be made equally as remunerative in this country we have no doubt, as the testimony of those farmers who have made the trial abundantly proves.

"A member of your committee, who keeps this class of sheep, says that he has received the present year, for his lambs when three and four months old, $6 each, and the fleeces from his ewes averaged him $3 each.

"Mr. G. Calvin Rice furnishes your committee with the following account of the produce from his flock of Cotswold and Leicesters: Of seven lambs, dropped between the 22d of January and the 8th of February, 1865, he sold to the butcher, on the 15th of May, four for $42.75; three he sold for stock for $22; five which were dropped later he sold about the middle of July for $24.24—these were the produce of nine ewes; he sold 70½ pounds of wool from twelve sheep, at 40 cts. per pound, unwashed, $28 20; total, $118.19. A pair of lambs from one ewe sold for $17.72; the wool sold for $2.30, making a total of $20 from one ewe.

"The breeds of sheep which your committee would recommend for the farmers of Worcester County to keep, and which to them would be the most remunerative, and are best adapted to meet the wants of the country at the present time, are the Leicesters or Cots-

wolds and their crosses, the Teeswater or the Lincolnshires, the Leicester and Southdown crosses. The brighter the wool the more valuable it is, being so much the better adapted to produce imitation Alpaccas and Mohair braids.

"It will be in vain that we plead as an excuse that soil and climate are not favorable for the production of such sheep. What advantage has Canada, in either soil or climate, over this country? We know of none, and yet Canada succeeds. The British farmer, upon high-priced lands, succeeds because he has a market for mutton and lambs, and he makes every effort to supply that market. And in his effort to supply it with good mutton he furnishes the best of wool. This is produced from the hoggets and wethers, when well fed. The object of the English farmer is to get these ready for the butcher at as early an age as possible, and as the best of food produces this result, so also the best feed produces the most and best of wool.

"The farmers of Worcester County, and almost every other location in Massachusetts, have as good a market for mutton as the English farmer has, and can raise as good wool as they choose. It is not the pastures which are deficient, as some maintain, which causes the farmer to fail in the treatment of this class of sheep, but it is the want of proper care and feed in winter. Whenever a sheep is allowed to lose condition there is a serious defect in the wool; hence the reason why sheep, when once fat, should never be allowed to grow poor, but whether ewes or wethers when once fat should be sold to the butcher.

"The increase in our woollen manufactories requires an increased production of the pure-bred Merino, and when there is no market for mutton it is the wool-producing sheep, and our vast prairies should be pastured by the sheep in place of the deer and buffalo.

"The unwashed Merino fleece will shrink in cleansing and preparing for the cards from 65 to 80 per cent., the Cotswold from 18 to 30 per cent.; and though we do not claim that the mutton breeds will produce a greater weight of wool in proportion to weight of carcase, we do claim that the mutton breeds will produce a greater weight of mutton and wool in proportion to the quantity of food consumed than the Merino."

STOCK SALE IN CANADA.—We learn by the *Canada Farmer* that at the sale by John Snell, of Edmanton, October 28, Short-horn bulls brought from $90 to 147, cows $71 to 150; young cattle, five months old and upward, $60 to $159, the latter price for "Modesty," a yearling. Leicester ewes brought from $12 to $36 a pair; ewe lambs, from $14 to $32 a pair. Cotswold ewes, from $24 to $52 a pair; ewe lambs, from $26 to $47 a pair; rams, from $20 to $60 each. South Down ewes, $10 a pair; rams, from $8 to $24 each. These prices, of course, were for gold. The animals offered were only the surplus of the herd, and the sale realized $3264.

LIME.—Lime enters into the composition of all our crops. Prof. Johnson gives the amount carried off in various crops as follows:—

25 bushels wheat,	9 lbs	9 tons potatoes	270 lbs
50 " oats	9 "	2 " wheat straw	14 "
38 " barley	15 "	1 " white clover	43 "
2 tons rye grass	33 "	2 " oat straw	43 "
2 " clover	124 "	2 " pea straw	51 "
25 " turnips	140 "	2 " bean straw	92 "

In addition to this, lime decomposes organic matter in the soil, and prepares it for plant food.

AMONG THE CALVES.—Jim Smith was a noted auctioneer. One day he was selling farm stock. Among the articles to be sold was a heifer, very attractive in her appearance, and consequently "Jim" dwelt quite extensively on her many excellencies, winding up with the elegant flourish that she was as "gentle as a dove." Thereupon a long, slab-sided countryman, whose legs were some twelve inches longer than his pants, approaching the heifer and stooping down commenced handling her teat. Bossy, not relishing such familiarity, lifted her hoofs and laid "Greeny" sprawling some ten feet off.

"There," said "Jim," "that shows one of her best traits; she'll never allow a strange calf to come near her!"

"Greeny" meanwhile picked himself up, and giving his bushy pate a harrowing scratch, exclaimed: "No wonder, when her own calf has been bleating around her all day!"

—A correspondent of the *Mirror and Farmer*, writing at Orleans, Mass., a town on Cape Cod, where much attention is given to poultry raising, says that the crows during the past season have destroyed a large number of chickens. One woman has lost some eighty, mostly by crows. They do not eat the chicken, like the hawk, but bore a hole with the bill, against where the heart lies, take out the heart, and leave the rest.

WHEAT CULTURE.

SOME of the Western cultivators are becoming seriously alarmed at the steady depreciation of the wheat crop in all the older wheat growing States. The *Prairie Farmer* of the 7th Nov. has a spirited article under the caption "Where shall we get our bread?" It quotes the report of the Commissioner of Agriculture going to show that within ten years the centre of wheat production will be beyond the Mississippi, and that the yield in California will, in a few years, be reduced from the fifty or sixty bushels to the acre, which it is now, to ten or twelve bushels. The editor states that Ohio within the past three years has imported 10,000,000 bushels of wheat to supply her people with bread, instead of exporting from 6 to 10,000,000 per year, which it formerly did.

This article was followed by another the succeeding week, which was republished in part in our last paper. We wish to call attention particularly to the proposition of the *Prairie Farmer* for a convention of wheat growers to discuss various questions connected with the subject. This is an important matter and it concerns the bread consumers of the whole country, as well as the bread producers. The fact that the average product of Illinois is reduced to ten or eleven bushels per acre is a conclusive proof that the present system of wheat culture is perfectly ruinous, and that an entirely different method must be inaugurated. The great distance to which wheat is now transported, adds enormously to its cost to the consumer.

This is a matter that concerns the East as well as the West. It is arresting the attention of commercial men, and concerns us all. The editor of the *Farmer* says, "had there been no virgin plains west of the Alleghanies, there would be better crops of wheat grown to-day between the Alleghanies and the sea than there are." We have no doubt of this.

There are many varieties of wheat, among which might be found those that are suited to different climates and soils. Varieties might be found that will ripen early enough to escape the devastations of insects. This subject requires study and careful attention. The wheat grown in New England may not be as white as that grown in a more Southern latitude, but it is as sweet, and as nutritious, and with proper cultivation we get more bushels to the acre than any but virgin soils yield at the West. We have grown fastidious about our bread, and sacrifice economy to whiteness. There needs to be a great reform in this respect.

Every farmer in New England should raise the wheat consumed in his own family, at least, and if he will select good seed and drill it into well prepared soil, he can do it, and thus obtain good, sweet, nutritious bread much cheaper than he now does. The bringing of bread ten or fifteen hundred miles by land to feed farmers who are cultivating soil upon which good bread stuffs may be raised, must be an expensive mode of living. A large part of our earnings must be paid for transport. This should be saved at home. The inhabitant of the city, the mechanic and the manufacturer, must purchase their bread, and they will of course obtain it in the market, but the farmer should find his own bread in his own granary.

Western men are coming back to the East to learn more scientific methods of culture, and are learning that they have no right to expect a continuation of large crops, without returning to the soil the elements which the crops have taken from it. When this lesson is learned, instead of the "bread centre" being at the foot of the Rocky Mountains, or beyond, we shall raise a larger portion of our breadstuffs in the older States than we do now.

A GOOD NATIVE COW.—A correspondent informs us that Luther Stanley of Springvale, Me., has a native cow from the milk of which in seven days, eleven pounds of butter were made. The cow had only common pasture feed.

FISH GUANO.

A correspondent asks us to give an "opinion as to the feasibility of manufacturing a *fish guano* from the offal and decaying portion of fish, which we as yet can find no use for."

The turning of fish into manure has already been done, and with excellent results, on various portions of our coast. As a special fertilizer, it has become an important article of commerce, and is found to be a profitable auxiliary in the production of various crops. In some instances the entire fish, fresh from the ocean, is used for carrying a crop of corn, by depositing one or two in a hill, hauling a little soil over them and dropping the seed upon it. We are not aware that they are used on the cereal grains, spread broadcast and ploughed under, in this country. The fish taken for the purposes of dressing the soil are chiefly the menhaden, but the alewives and some others are taken when coming upon the coast in large numbers. One process of preparing them is by pressure. This is done by steam or other power, and it is so great as to force out all the oil they contain,—which is the first object in view,—and leave the mass almost as dry as so much seasoned wood. It is then ground in a mill, or in some way broken, and is barrelled for market. Put up in this manner it can be transported inland by wagon or railroad, and we should think might become an important article in the raising of cotton. In the cotton districts, near the coast, it would seem that this special fertilizer might be made available to a very great extent, and if so on cotton, on other crops.

Fish are extensively and profitably used as manure by the farmers on Long Island and in many places in the New England States. On Chesapeake Bay, in Maryland, the farmers collect large quantities of refuse,—the heads, cleanings, &c.,—and cart them many miles inland; and so they do from the fisheries on the Potomac, Delaware and other rivers.

Another, and quite a rapid and ingenious mode of converting fish into guano, is frequently adopted by those living near the fishing grounds. In the first place, an ample ditch is dug in or near the field where the manure is to be used, and the soil thrown up carefully in a ridge directly on its edges. The proprietor then visits the fishing grounds, and when the seine is hauled an estimate is made of the number of barrels of fish which it contains, and the whole purchased and thrown into carts and conveyed to the ditch. When the ditch is filled up to a level of the surrounding ground, a sprinkling of fine earth is scattered over the fish. If the weather proves warm for two or three successive days, a slight motion may be noticed on the surface of the mass, which shows that fermentation has taken place on the upper layer of the fish. A little more fine soil is then added, and the heap watched with especial care. Fermentation and decomposition now proceed very rapidly. The mass, from an inert soon becomes a very active one; and the amount, in numbers, of animal life, is perfectly astonishing. Their name is legion upon legion! The whole bulk is in motion. A moving mass of wriggling, slimy worms, all seemingly intent to escape from the pit in which they were generated, are crowding the banks of the ditch and the ridges of earth to make their escape! And escape they would, were not help at hand. This result has been anticipated, and workmen have been summoned to the spot to prevent it —which they do by throwing down the ridges and burying the creatures where they were born. Sometimes this is an exciting scene,—for if the work is delayed a little too long, the crawling gentry have escaped in such numbers upon the ridges and the surrounding soil, as to make the work anything but agreeable. After this, the heap must be watched for a day or two, as the lower strata occasionally push through the superincumbent mass, and a new exodus takes place. An additional covering of soil retards their motions, and finally presses upon them so heavily as to suffocate, or in some other way destroy them. At the end of a few days, the whole is thrown out, more soil, muck or coal ashes mingled with it, if thought necessary, and it is then ready for use, and is applied in the hill, at a rate according to its degree of strength.

All preparations of fish are very rich fertilizers; even where the oil is extracted, as in the process of pressing. When all parts are preserved, the fleshy or muscular portions abound in oil. The scales are composed of coagulated albumen and phosphate of lime; the bones are full of oil, and the solid portion is composed of phosphate of lime and carbonate of lime in different proportions. The flesh

also contains large quantities of nitrogen, and acts with much energy in hastening the growth of plants. The effect of fish manure upon soils is supposed to be more permanent than that of most other special fertilizers. Sir H. Davy states that the effects of pilchards,—a very oily fish—are apparent for several years, after being mingled with the soil.

We hope our correspondent will enter judiciously into the preparation of fish guano, make a pure article, sell it at a fair profit and tell the world precisely what he is selling. Farmers have been so grossly deceived in the purchase of special fertilizers, that they have become exceedingly distrustful of everything that bears the name, and often sacrifice their interest rather than purchase and run the risk of being cheated.

There is no doubt but that any quantity that can be produced, of a good article, will find a ready demand in the New England States, if sold at a fair profit to the manufacturer.

For the New England Farmer.

A VISIT IN SUNCOOK VALLEY, N. H.

I recently had the pleasure of a visit with some of the farmers of this section. From Concord to Pittsfield I rode in the stage, and passed much land that is almost worthless for farming purposes. These are sandy pine plains and rough stony land. Thrifty growths of white birch, oak, pine, chestnut, &c., are growing on land that had once been cleared; when the settlers seemed in doubt whether to hold on to their clearings or let them go back to wood land. I saw some good farms in the Suncook valley, about Pittsfield, Barnstead and Epsom, and also on the hills.

Value and use of Forests here and in Vermont.

Everywhere there was plenty of wood land in sight, and it was highly valued. I walked through a fifty acre wood lot on one farm, where the land had been cleared and grain was raised less than forty years ago. The stone-heaps of the old cultivation were visible, yet the owner had cut on about one-third of an acre, fifteen cords of wood, that he sold in Concord for $125, (from $8 to $9 per cord.) This whole lot would yield $100 in marketable wood per acre, and also enough more to pay expense of cutting and marketing. There were several pine trees worth $25 each. This wood lot was part of a two-hundred-acre farm tilled by Albion Locke, Esq. The whole farm is valued at about $5000, just about the value of that piece of timber, although it has good fields and pastures and a good house and barn. But in some of the northern counties of Vermont, remote from large villages, the value of woodland is very different from what it is in this section. In Orleans County, Vt., good farming land can be bought for five dollars per acre, in some localities, covered with a good growth of large trees of maple, beach, birch, spruce and hemlock, but no pine. There is a limited demand for wood at $3 per cord. Last winter an energetic man with 120 acres of wood tried to raise some money by drawing 100 cords to the village, three miles off. He paid one dollar a cord for chopping, and hired a man to draw it. Including board of man and team, he found that he should have done better by $25 if he had let the wood stand. Hence it is evident that wood land cannot be cleared in that way, at a profit, and if it is left standing it is starvation to the owner of a new farm, as corn and wood do not thrive together. However wasteful it may seem to those in older sections, the true way to make a farm in the wilderness is to burn the wood and clear the land by fire, speedily and thoroughly. This done, the crops each year will pay a profit. Thus, while the man who loves his wood land is living in poverty, the one that clears his land is surrounded by comforts that his fertile acres annually yield. The idea that timber affects climate favorably, is in some degree erroneous. It will surely break the force of winds and cause them to move perhaps a hundred feet above the surface, rather than upon the ground. A belt of timber will protect from winds, but the temperature falls as low and storms come as often as upon exposed highlands. My cattle seem to think the south side of my barn the warmest, yet the many barns that have been built have not turned winter to summer, nor changed the climate materially It makes a very pretty sentence to weave in with a glorification of the steam engine anticipations of the time when our acres of wood will be wanted at high prices, but such enthusiastic predictions do not give food to man or beast; nor do railroads, as yet, transport wood from the land of plenty to the land of scarcity, at a rate so low as to give a great margin for profit. Three dollars' worth of wood will weigh two tons, while the same value of butter or wool is trifling.

Preparation of Land for Corn---Oiling Cart Wheels.

Mr. Locke was preparing his corn land for next spring. He plows a piece of grass land, and on the furrows spreads the manure made by his cattle during the last winter and summer, which is stored in a good barn cellar. This manure is harrowed in in the fall, and then in the spring is harrowed mellow, and the corn planted. The manure being so fully incorporated with the soil, produces the best results. The next crop will be wheat, with which grass seed is sown.

The cart used by Mr. L. is peculiar in one respect, which is worthy of notice. In each

hub a tin tube was set in brimstone, which extended from the surface through the hub and the tube box to the iron axle, so that by taking out the stopper, the oil could be turned upon the axle through the tube, without removing the wheel. This has proved a great convenience, as sometimes it is desirable to oil the axles when loaded.

Rye, or Witch Grass.

On the farms in this section of New Hampshire this grass grows very commonly, and is now regarded by many with favor, as it does not seriously interfere with raising grain, and is sure to grow after the ground is seeded to grass; giving, if cut early, a crop of nutritious hay. Some say that witch grass alone will cause a horse to thrive as well as other hay accompanied by four quarts of oats.

Black Leg.

A disease among young cattle, known by this name, has caused great losses here, but bleeding has been found a sure preventive, and, if resorted to in season, a cure in most cases. Mr. Prescott Locke had 15 calves, of which seven drooped and died of black leg; and another was attacked when he had the remaining eight bled, all of which lived. A fattening ox also was attacked and saved by bleeding and exercise. I believe that young cattle should be bled in the spring, and just before they go into the fields in the fall; but this is often delayed until the death of one gives warning of danger. The black leg is the result of the coagulation of blood in the legs or some parts of the body. When the animal is skinned, it looks quite dark and bloody, but bleeding makes the blood thinner, and has proved a satisfactory remedy.

Smoking Hams.

I received a new idea from Mr. Locke in regard to smoking hams. Let the hams remain frozen and wrapped in papers through cold weather. In the spring, smoke your barrel by gradually burning under it, when inverted, a bushel of cobs, then rinse the barrel with warm water that is to be used in making the brine. For 100 pounds of meat, use ten lbs. salt, 2 qts. molasses, 2 ozs. saltpetre, with water enough to cover the meat. Scald the brine, skim it, and put it with the hams, packed in the smoked barrel. Treated in this way the hams have the taste of smoked meat, without smoking, and will keep, like other salt meat, through the summer.

Cob Meal for Man as well as Beast.

I went with Mr. A. Locke to the saw and grist mill owned by him, in Epsom village. I found it was customary for farmers to bring their corn in the ear and have cobs and corn ground together. This has become rather unpopular in Vermont. In my vicinity such meal is only fed to animals,—here in New Hampshire it is ground finer and used for making bread, as well as fattening animals. Having partaken of this bread freely at several meals, I must say it was excellent. In Coventry, Vt., Mr. Daily, the miller, has completely worn out a cast iron corn-cracker, and those who used the large amount of meal thus made came to the conclusion that grinding cobs did not pay; but here it is regarded with favor, and if the results continue satisfactory, I must think it is because it is ground very fine, so that no hard indigestible chips of the cob remain.

Oxen as a Farm Team,

Are regarded with more favor in New Hampshire than in Northern Vermont. I saw one farmer using eight oxen, another drawing muck with six, and from conversation I found them to be a favorite team. On the farm of Augustus Lord, in Epsom, the stock is nearly all oxen. Last winter forty-two oxen were fattened that girthed from seven to nine feet each. The largest pair sold for $700. The last summer they were fed they had meal regularly and gained five inches in girth. At present there are only eight oxen in the stalls; the largest pair are five years old, and girth eight feet two inches. These steers did not have meal through the summer, and did not gain in size. Would it have been more profitable to meal them? The usual daily ration is a peck each.

At Suncook a factory to run 1000 looms is being built, in which three and a half millions of brick are used. Z. E. JAMESON.

Irasburg, Vt., Nov. 19, 1868.

REMARKS.—We thank our correspondent for the foregoing communication. Might not many farmers furnish similar articles, based on what they see abroad, if their home experience fails to furnish matter for an occasional letter? We can hardly endorse, however, the writer's recommendation of fall and spring bleeding of stock. This was more customary in our boyhood than it is now. We remember that the old fleams and the jack-knife were often used,—the first on the neck and the latter on the tails of cattle. We should not care to see in one bloody heap all the "scalps" which we have taken from the caudal appendage of young cattle suspected of "horn-ail" in the "fly-brush!" In the days and in the neighborhood of our boyhood men as well as animals were bled not only to restore, but to preserve health. But so far as we know our best family physicians have abandoned the use of the lancet to a very great degree; and we had supposed that our veterinary surgeons and most careful farmers were following the example of the "M. D.'s" in this respect. Still in

the cases alluded to, bleeding appears to have been attended with beneficial results. And our remarks are designed to call out the expeence of others, rather than to express a positive opinion of our own. We may, perhaps, remark that Mr. Allen, in his new work on "American Cattle," disapproves of bleeding, and that the late Dr. Dadd cried out with great energy, "No more blood-letting!" The amount of capital invested in stock growing in this country gives great interest to all questions involving its management, both in health and in sickness. What is the practice of farmers in relation to bleeding their animals?

For the New England Farmer.

RECIPROCITY---MUTTON.

The American farmer takes his ideas of sheep from the Merino, which is a wool sheep and nothing else, and as a consequence whenever anything is said about sheep, we always hear the cry of wool, wool! This is the cry with Dr. Randall in reference to the Reciprocity treaty. But there is something more than wool in the long wooled sheep. There is mutton, and why do we not hear, in the connection with the renewal of the Reciprocity treaty, the cry of mutton? Why do not our farmers ask to be protected against Canadian mutton? And why not against Canadian beef? Because our farmers can produce beef as cheap and as good as the Canadians. They can also produce as good mutton as the Canadians, and without considering wool at all, they can produce mutton as cheap as beef; that is, if they obtain mutton sheep.

The leading object with the merino sheep is wool, but with the long wooled or mutton sheep the leading object is mutton, not wool, although the wool brings such a high price.

The English farmer labors to produce mutton. He selects his sheep for early maturity; he wants to fat his wethers at two years old. This is what is aimed at by all the new and improved breeds. It has not been either finer or longer wool, as the staple has been shortened; but in obtaining sheep that matured early they kept them all the time improving, and thus produced wool which was less liable to break,—that is, the staple was uniform, having no weak places in it, and there was less cotted wool in it, and as a consequence, it was more valuable. Let the farmer forget all about wool, but labor to produce the best of mutton from the youngest sheep, and he will produce the best wool,—he cannot do anything else,—that is, the best of its kind. A better breed might produce better wool. Another thing he must remember, that long wooled sheep mature earlier than the merino, and decay sooner. He never ought to breed from his own ewes after they are five years old. Fat them at that age, and he will have good mutton from his ewes, and wool not much deteriorated; but wool from old ewes is liable to be weak and cotted, loose and dry, or what J. Walworth designates "brastry," a term we believe unknown in the English language, but very expressive. But unless sheep are kept in good thriving condition, we cannot have good wool. Then again, must be considered the value of the lambs from long wooled sheep. Here is another source of wealth. For the butcher, merino lambs are of little value, but from the long wools, their large size and early maturity are objects for the farmer near or where access is easy to the market.

We want this subject looked at from every stand point,—and we have another consideration in the fact that it costs little more to fence against long wooled sheep than against other cattle; but they require good pastures, and here is a point where our farmers fail. They want to keep the long wool sheep on pastures where the merino can only obtain a bare existence, and they become poor and their wool worthless almost, and the farmers abandon long wooled sheep because, they say, they are not adapted to our system of farming. They also crowd them during winter into close quarters, and feed them on the poorest of hay, and when they come out in the spring poor, and wool worth little, they say this will not do,—we must go back to the merino. But they gave the best of hay, meal and oil cake and roots to the stall-fed ox, and he comes out fat and worth a pile for beef. Had they fed their sheep the same, they would have had as much weight of mutton as of beef, and would sell for as much, and sixty pounds of wool besides; but they fed the sheep with what the oxen would not eat, and then found fault because they do not come out as well.

MENTOR.

Boston, Nov. 27, 1868.

REMARKS.—We believe that our farmers do ask to be protected against Canada beef and mutton, as well as wool. We were recently informed by one of the buyers of Canada stock for Brighton market that an intelligent farmer in the Provinces told him that after paying the duty on stock he could successfully compete with the farmers in the States.

—Orrin Hager, of Wallingford, Vt., writes to the FARMER that while at work in the barn with his father recently, they found a raccoon snugly curled up in a barrel that stood on the floor. On taking him to the house he was rather bashful at first, but now he eats maple molasses and other delicacies, and appears to be quite well satisfied with his winter quarters.

From the Springfield, Mass. Republican.

WILLIE WENT A WOOING.

Young Willie went a wooing,
One pleasant Sunday night;
Went wooing Jennie Gilbert—
Pray who had a better right?
The dew was on the flowers,
The stars were shining bright,
When Willie went a wooing,
One pleasant Sunday night.

The path led through the meadow,
To farmer Gilbert's house,
And Wil ie trod as gently,
And "sly as a mouse."
But his heart it grew tumultuous,
When first he saw the light
In farmer Gilbert's parlor,
That pleasant Sunday night.

Jennie Gilbert was the mistress
Of farmer Gilbert's farm,
And many fond admirers
Had offered her their arm;
And told her how they loved her,
But it wasn't told aright,
Until Willie went a wooing,
One pleasant Sunday night.

She was her father's all on earth;
Her mother, years ago,
Went down the darkened valley,
And crossed the river's flow;
And Jennie grew to womanhood,—
Of her father's home the light,
Where Willie went a wooing,
One pleasant Sunday night.

Twas never known what Willie said,
Nor how his love he told,
But—Jennie let him hold her hand,
(Perhaps that made him bold,)
For he kissed her on her burning cheek.
Her little hand held tight,—
Did Willie, while a wooing,
One pleasant Sunday night.

The farmer in the kitchen lone,
Sat by himself apart,
The wooing in the parlor
Made sorrowful his heart.
The hour hand on the kitchen clock
Was standing bolt upright,
Ere Willie left off wooing,
That pleasant Sunday night.

To breakfast on the morrow,
Jennie came a little late,
Her father gazed into her eyes,
And sought to read his fate;
But she kept her secret nobly,
Her father's gaze despite,
Said not a word of Willie
Or the pleasant Sunday night.

Dark-browed sat farmer Gilbert,
And with a lengthened face,
He thought of all the empty rooms,
Within that pleasant place;
So sad was his demeanor,
That Jennie, pale with fright,
Thought Willie sure was tabooed
From coming Sunday night.

But Willie Gray was sent for
That very blessed day,
And everything was settled
Before he went away.
For Will, and Jane, and "Father"
"Put everything to rights,"
And Willie came a wooing,
The coming Sunday nights.

Blithe Will and gentle Jennie
Now journey side by side,
A worthy, happy husband,
A loved and loving bride.
Farmer Gilbert rocks the cradle,
The farm looks trim and bright,
And Willie woes his Jennie
Now, every Sunday night.

EXTRACTS AND REPLIES.

FATTENING SHEEP.

Please give the best method and feed for fattening sheep. D. H.

Otisfield, Me., Nov. 3, 1868.

REMARKS.—The best method and feed must of course depend somewhat on circumstances. But after all, the pith of the old saying that "the good workman never complains of tools" is about as applicable to the feeder as to the mechanic. The best method and materials for building a ship can only be learned by actual practice, and we believe there is about as much experience and skill required in fattening sheep as in building ships. In either case the recorded knowledge of other men may assist, but cannot make the finished workman. It is therefore with much diffidence that we attempt a reply to a request for information on a subject of which we have little practical knowledge, as but few sheep are fattened in our neighborhood.

We copied last summer,—MONTHLY FARMER page 322, some remarks upon the subject by an English farmer who put the remark in italics, "*I always try to avoid letting any of my sheep or lambs have any sudden change of food,*" thus indicating his high appreciation of the importance of regularity and care in feeding. Indeed, Dr. Randall says "all experienced flockmasters concur in the opinion that sheep fed with perfect regularity as to time and amount will do better on rather inferior keep, than on the best without that regularity."

John Johnston, Esq., the well known farmer of Geneva, N. Y., gave the following account a few years ago of his manner of feeding sheep.

"I generally buy my sheep in October. Then I have good pasture to put them on, and they gain a good deal before winter sets in. I have generally had to put them in the yards about the first of December. For the last twenty-three years I have fed straw the first two or two and a half months, a pound of oil cake, meal or grain, to each sheep. When I commence feeding hay, if it is good early cut clover, I generally reduce the quantity of meal or grain one-half; but that depends on the condition of the sheep. If they are not pretty fat, I continue the full feed of meal or grain with their clover, and on both they fatten wonderfully fast. This year (1862-3) I fed buckwheat, a pound to each per day, half in the morning and half at four o'clock P. M., with wheat and barley straw. I found the sheep gained a little over a pound each per week. It never was profitable for me to commence fattening lean sheep, or very fat ones. Sheep should be tolerably fair mutton when yarded. I keep their yards and sheds thoroughly littered with straw.

"Last year I only fed straw one month. The sheep were fed a pound of buckwheat each. From the 20th of October to the 1st of March, they gained nearly 1½ pounds each per week. They were full-blood Merinos—but not those with the

large *cravats* around their necks. I have fed sheep for the eastern markets for more than thirty years, and I always made a profit on them except in 1841-2. I then fed at a loss. It was a tight squeeze in 1860-1 to get their dung for profit. Some years I have made largely. I did so this year, (1862-3,) and if I had held on two weeks longer I should have made much more. Taking all together it has been a good business for me."

Mr. W. R. Webb, of Milford Centre, Ohio, in a communication to the *Country Gentleman*, says that the common practice in that corn-growing section is to buy up sheep for feeding in the summer and fall months, put them on good pastures till about the middle of November, when feeding commences with about half an ear of corn each day, gradually increasing the amount till the first or middle of December—according to the season—when they commence giving them corn in the shock, at the rate of two bushels per 100 sheep; which is gradually increased up to three bushels. They are fed corn in the morning and hay in the evening. The corn is of the large Western kind and is never husked, consequently the sheep have not only the corn but the fodder likewise. The shocks are usually made of one hundred hills, and we suppose are drawn from the field as wanted. Some of the best feeders say they would not have the corn husked if it could be done for nothing. Mr. Webb's sheep had a shed for protection, with access to water. He thinks that one wetting by exposure to storms will take off two week's feed.

KING OF TOMPKINS COUNTY.

Herewith I send you some specimens of one of the finest apples I have ever seen. I raised this year about two bushels, all nearly as fair and large as these.

I think upon trying them you will pronounce a favorable judgment. It is a full bearer and has no bad quality, while it abounds with virtues. The name is indicative of its place of nativity, in New York,—the "King of Tompkins County."

I. A. SHURTLEFF,
by AUGUSTINE SHURTLEFF.

Brookline, Mass., Nov. 24, 1868.

REMARKS.—Thanks for the beautiful apples, which prove as good as they are fair. Put in the scales the specimens received averaged 8¼ ounces. "This splendid apple," says Dr. Warder, in his *American Pomology*, "which has attracted so much attention of recent years, had its origin, as is supposed, in Tompkins county, N. Y., where it has been much cultivated. Tree vigorous, healthy, large and spreading, an abundant annual bearer. Fruit large, handsome, globular, irregular, somewhat conic, angular; surface smooth, yellow, covered deep red, marbled and striped; dots numerous, gray, large. Basin, shallow, folded; eye large, short, closed; cavity wide, shallow, wavy; stem short and thick. Flesh yellowish-white, tender, breaking; flavor sub-acid, aromatic. Quality best. Use, table, kitchen and market; season, December and longer." Mr. Cole says, "as good as the Wine apple, as showy, and better than the 20-Ounce."

These specimens raised on Massachusetts' soil, are about half an inch larger in diameter than the outline in Warder's Pomology, and proportionally longer. Considering the fact that the author of that work lives in Missouri, and that his specimens were probably raised in the fertile West, this fact is alike creditable to our old Commonwealth and to the skill and care of those by whom they were raised.

NORWAY OATS.

If the oats called Norway oats were first discovered in this country on the farm of D. W. Ramsdell of Vermont, I would like to know why they are called *Norway Oats*. A SUBSCRIBER.

North Ferrisburg, Vt., Nov. 23, 1868.

REMARKS.—In reply to a similar inquiry made by a member of the New York Farmers' Club, at a late meeting, and in response to Solon Robinson, who denounced these oats as "a swindle and an unmitigated humbug," Mr. Jones, one of the firm who advertise them in New York, claimed a hearing. As reported in the *Tribune*, he said:—"The name 'Norway' we simply employ as a trade mark, which we have a right to do. Here Mr. Jones talked a long time about the superiority of the Norway oats, and stated that this is *not* another name for the Poland oats. They do not, he said, claim that the Norway is very much heavier than the common oats. But what they do claim is, that the Norway yields more abundant crops of grain. The straw is much stiffer and maintains an erect position on any kind of land much longer than the common oats, and consequently the panicles fill with grain much more satisfactorily than if the stems fell down before the kernels have come to maturity. Its bearing qualities, he said, are truly wonderful."

AN INTERESTING CASE OF PARALYSIS.

A neighbor of mine has a horse, the lips of which are paralyzed. Early last summer the horse got a poke over his ears and across his head in such a way that it was almost impossible to get it off. Immediately afterwards his lips became very badly swollen, and although he could gather some grass with his teeth, he was unable to hold it in his mouth, and has, therefore, become very poor. Perhaps some of your correspondents will know a remedy. W. B. K.

West Fairlee, Vt., Nov. 13, 1868.

REMARKS.—We hope some reader of the FARMER will respond to the above request. Mr. Youatt says, "the stream of nervous influence is sometimes stopped, and thence results palsy or paralysis. This in the horse usually proceeds from some injury to the spinal cord." But these remarks were made in connection with the subject of paralysis of the fore or hind extremities of the horse. The *American Cyclopædia* defines paralysis as "the loss of the function of motion or sensation from an interruption or destruction of the nervous influence necessary to those acts. This may occur either in the brain, in the course of the ner-

vous connection, (spinal marrow and nerves) or in the peripheral termination of these nerves." Paralysis is, therefore, a symptom rather than a disease,—a result rather than a cause,—and our inquiry should be directed rather to the cause than the effect. Mr. Youatt says when paralysis is confined to certain parts alone, such as the ear, lips and larynx, any apparent cause should be at once removed, and then treated by counter irritants, such as blisters and setons.

OXFORD DOWN SHEEP.—DRYING MUCK.

In looking over your paper this evening I see an article headed "Long Wooled Sheep," and in reading it I see the writer mentions the Oxford Downs as a valuable breed. From what he says, and from the description I have seen before of them, I think I should like them, and I wish to inquire of you or your contributor Mentor, where they can be found.

I would also like to inquire of your subscribers who are accustomed to using muck, if it can be dried without great expense so it can be used under the cattle in the winter, and if so, what is the best way of doing it. B. B. SMITH.

Dover, Me., Nov. 14, 1868.

REMARKS.—In relation to the Oxford Downs we can give our correspondent little information. It was originally a cross of the Hampshire and South Down ewes with a Cotswold ram, which has been bred in England with sufficient care to produce a sheep of uniform character. Mr. Richard S. Fay, of Lynn, Mass., imported some of them a few years ago, and was well pleased with them, but we do not know whether he has them now or not.

Muck for bedding cattle is dried simply by exposure to the weather for several months after being dug out of the bog, carted in a dry time to some shed, barn cellar, leanto or other shelter, and of convenient access to the cattle stalls. Some adopt the plan of beginning an excavation at the border of the marsh sufficiently wide for a cart path, throwing the muck out on boards or planks laid upon the surface on each side, to prevent it from absorbing moisture from the wet ground beneath; this broad ditch being carried to a sufficient length and depth to obtain the requisite quantity of muck. Thus thrown out, the two piles are covered with boards, and in from six to twelve months will be found to be dry and light. If the bottom of the ditch is solid a cart may be backed into it and very easily filled; or, if soft, wait till the ground is sufficiently frozen to bear the team and cart or sled.

This exposure of the muck has other beneficial effects beside that of drying. The fibres of moss, grass roots, &c., are decomposed so that the tough blocks are readily pulverized. "Another advantage," says Prof. S. W. Johnson, "of exposure is to bring the peat into a state of more active chemical change. Peat of the deeper, denser sorts, is generally too inert ('sour,' cold) to be directly useful to the plant. By exposure to the air it appears gradually to acquire the properties of the humus of the soil, or of stable manure, which are vegetable matters, altered by the same exposures. It appears to become more readily oxidable, more active, chemically, and thus more capable of exciting or rather aiding vegetable growth, which so far as the soil is concerned, is the result of chemical activities." Peat used for fuel is sometimes kiln-dried, but we have never known of any such expensive process in preparing it for bedding; nor do we think there is any need of it. If thrown out upon dry land in fall, winter or spring, without any covering, it will become sufficiently dry during the summer to answer a good purpose, if housed when thus dry.

HOUSE CELLARS.

While engaged in banking the house this week, at odd jobs, the question occurred to me, how much does it cost first to bank a house every fall and then to take it away every spring? Not less than one day's work for each operation. This in forty years would amount to $80 at only $1 per day,—quite a sum for a farmer to spend. Besides this, there is the wear of the house to be taken into account. I have inquired of several of my neighbors how all this expense can be saved. "Better underpinning," is all the answer I get from some; others say "lay your wall in mortar." Some say that it is enough to lay two feet of the top in mortar; others that it should be so laid from top to bottom. Some say that the wall should be double with a space for air; others that a single wall is sufficient. It is very important that we should be able to keep our potatoes, apples, vegetables, &c., from frost. How would it do to point an ordinary wall with mortar, then set up some two-inch stuff and lath and plaster on that? A reply to these questions by the editor or some of the correspondents of the FARMER will confer a favor on

A YOUNG FARMER.

Wallingford, Vt., Nov. 2, 1868.

REMARKS.—A cellar may be kept from freezing by setting the house on a stone or brick underpinning which is from twelve to eighteen inches thick, lining up inside with bricks or flat stones, and leaving a space of an inch to six inches for "dead air" between the two. But where a house is set directly upon the cellar wall this cannot well be done. In such cases it is a dirty, expensive and ruinous practice to bank up with earth. It requires a team to do it, cuts up and defaces the yard about the house, and rots the wood-work and sills when it is done. In the spring the earth is to be removed when the ground is soft, and the dirty process is to be gone over with again.

A better way is to "bank up" with some light substance. Frost will penetrate a granite slab two feet thick, quicker than it will a bag of feathers of half that thickness. If dry leaves are at hand, put up the boards edgewise so as to leave a space twelve to eighteen inches wide between them and the house and fill it with dry leaves, tread them down, and cover them over with boards laid on so as to conduct the rain away. If leaves are not at hand, refuse hay or straw may be used.

The best substance, however, that we have found is branches of the white pine, hemlock or other evergreen trees. It is easily procured, and requires no use of boards in banking. Cover a space

with them two feet or more wide on the ground, and as high against the house as you please, and tread them down so that they will lie somewhat compactly. If the first snow that thus falls is attended by wind, it will probably sift the snow into all the crevices among the branches and these form a most effectual barrier against the progress of King Frost. If the wind does not do the work, do it yourself with a shovel.

All the drainage of the house which we occupy passes out through the north corner under a woodhouse floor. This is never warmed by fire. *Outside* of the house, pine branches are laid upon the ground and up against the clapboards, to the depth of about two feet, and none of the pipes have frozen, although water is continually drizzling through them.

COTSWOLDS IN VERMONT.

Enclosed I send you a sample of wool clipped from a Cotswold ewe (one of nine) recently purchased from Mr. T. L. Hart, West Cornwall, Conn. They, together with the bucks received from Mr. H., are good specimens of this breed of sheep. The wool on one of the bucks measures over seven inches, is quite thick and firm. I have a specimen of wool of fourteen months growth, taken from a cosset ewe, which measures fifteen inches.

Montpelier, Vt., Nov. 30, 1868. A. D. Arms.

Remarks.—No wonder that beautiful delicate cloth, fit for anybody's wife's or daughter's Sunday dress can be made from such silky, glossy fibres as those which make up the beautiful lock of wool accompanying the above communication. The editor of the *Montpelier Journal*, who had the pleasure of examining these sheep, says, "a visit to this flock will well repay any one interested in breeding sheep. Much praise is due to Mr. Arms for the enterprise he has exhibited in procuring them."

WANTS TO KNOW ALL ABOUT FRUIT CULTURE.

I have purchased a small farm ten miles from Boston, and as I am but an amateur in farming, though all my boyish days were spent in that occupation, I take the liberty of making some inquiries through your valuable paper. Most of the land of the farm is a light sandy loam. A small run, however, passes through it, with a brook, and a level plat on its border of very rich, dark loam. The south bank of the valley consists of four terraces varying from eight to twelve feet wide. I wish to cultivate fruit to considerable extent of all the best varieties suited to the soil and climate. I wish to learn what are the best and most reliable pears, apples, peaches, cherries, plums and quinces, with best variety of small fruits. Is it advisable to set them out this fall, or wait till spring? Where can I find the best assortment, and most reliable man to purchase of? I propose to set out this fall and next spring three or four hundred pear trees with apple, peach and cherries. If you, or any of your correspondents, will post me up in these matters, you will much oblige

Boston, Nov. 29, 1868. A Subscriber.

Remarks.—Our correspondent is full of zeal, and, like a new broom, means to sweep clean. He has laid out a large work, and we fear, will attempt too much at once. It will be impossible for him to learn from the books, or from what we may say, all he desires to know; he must get most of it by experience, by actual contact with the work itself. Still, he can be greatly aided by books, and to secure this aid we advise him to get *Downing's Fruits and Fruit Trees of America*, and read it carefully through the winter. Another source of aid—far better than any we can give him—is to visit the farms of his neighbors and see for himself what crops flourish best on soils similar to his own, especially noting whether the fruit trees he desires to cultivate are thrifty and produce crops. He should then put the same questions to his neighbors that he has put to us, because different localities are favorable or unfavorable to the culture of fruit trees, and our suggestions may not suit his particular locality.

Apple trees may as well be set in the fall as in the spring; peach, pear and cherry trees, we prefer to set in the spring. You must look to our advertising columns for persons who sell trees. Most of them are able to supply all the common varieties.

CURES FOR GREASE OR SCRATCHES.

In reply to the inquiry of "R. P. T." of Canaan, Vt., for a cure for scratches, I copy the following from Chase's Receipt Book:—1. Wood ashes lye and a strong decoction of white oak bark, boiled together, will cure bad cases of scratches, but it will take off the hair. Must be applied with a long handled swab, as it will make the animal tear around like mad. 2. Half ounce of verdigris in one pint of whiskey. 3. Sweet oil 6 ounces, borax 2 ounces, sugar of lead 2 ounces, well mixed and applied twice a day. 4. Copperas and chamberlye, used as above. 5. White lead and linseed oil, mixed as for paint; some prefer lamp oil; if the latter is used, it must be mixed till it assumes a light straw color. Before applying either of the above the horse's legs must be washed perfectly clean and rubbed dry. A Subscriber.

North Orange, Mass., Nov. 28, 1868.

Remarks.—We know nothing of "Chase's Receipt Book." Our correspondent says of the first three prescriptions, I feel safe in saying that the worst cases will be cured in a few days by their use. There seems to be as many cures for the scratches as there are out West for the ague.

THE NOVEMBER SHOOTING STARS.

Our Indian summer that has delayed its coming so long, was fairly inaugurated this morning by a grand display of fireworks. You may remember that two years ago, I was watching so eagerly for a similar scene that I dreamed about it, and waked to find my dream unrealized. Last night I retired without thinking of the matter, but still I dreamed of the meteors, and as I started on my customary round of chores, lantern in hand, I soon found that my dream this time was more than realized, as from that time till the greater light that rules the day put out the fixed stars the display was truly grand. Many of the largest meteors leaving a brilliant train that lasted some time.

Roxbury, Vt., Nov. 14, 1868. W. I. Simonds.

CURE FOR CHILBLAINS.

Anoint the feet thoroughly with salt butter, and heat in by a hot fire for five or ten minutes.

Brookfield, Vt., 1868. L. W. B.

MERINO SHEEP.

About three years ago it was stated in a public address that all our national flags "are grown, spun, woven and dyed in England; and that on the 4th of July, the proud American ensign which floats over every American ship, post and fort, and every patriotic home, flaunts forth upon the breese the industrial dependence of America upon England." It was also said that "we imported in 1860 $15,000,000 of worsteds, principally from England, while we made only $3,000,000." These and a great many similar facts have satisfied us that more attention ought to be given to the production of coarse or combing wool. The demand for mutton is another argument in favor of a larger breed of sheep than the Merino.

While favoring therefore the introduction of the Leicester, Cotswold and Downs, we should be sorry to see it done at the expense of a breed so valuble as the Merino, or under the excitement of a "fever."

We dread fevers. Whether the patient be an individual or a community, both pulse and brain are affected. The poor patient is often subject to hallucinations and phantasies which, though strangely real at the time, prove on his recovery as a dream when one awaketh. We do not know that the American people are constitutionally predisposed to fevers, but the frequency of their occurrence in the community would seem to justify the most stringent precautionary measures. We are just recovering from a hop fever that has proved of unusual severity. A violent type of potato fever is known to exist in some sections, while in others many cases of a relapse of the hen fever are reported. One of the worst features of these diseases is seen in the fact that they are succeeded by a chill, which usually corresponds to the intensity of the fever. A few years ago Merino bucks were sold from one to ten thousand dollars per head; Merino sheep

are now sold in our Eastern markets at one to two dollars each, and at the West we read of their being pelted and boiled up for the tallow and pig-feed their carcases afford! And now everybody is going into the dairy business, stock raising, or growing coarse wool.

We fully believe, as Mr. J. Harris of Rochester, N. Y., says in the *American Agriculturist*, that "farmers are making a great mistake in slaughtering their sheep. But nothing will stop them. It is a pity we cannot have more stability and fixedness of purpose in our agriculture. What we do we should do well—and stick to it. A farmer should think for himself, and not be influenced too much by outside opinion. 'You cannot make anything by raising common crops,' said a friend a year ago; 'you should set out a hop-yard.' What would he say now? There has been more money lost in hops the last year than would richly endow an agricultural college. And if people were educated to *think* they would have foreseen such a result. The fact is that common crops pay better now than anything else, provided you can only raise enough of them per acre. Stick to what you understand, and let those who have a fancy for novelties try them. There are enough farmers, so called, who wish to make money easily and rapidly, without you and me adding to the number."

In presenting the above cut of Mr. George Campbell's French Buck "Matchless," as a type of the Merino sheep, our object is to enforce the remark of Prof. Harris that "a farmer should think for himself and not be influenced too much by outside opinion." It is an old proverb that all changes are not improvements, and it would be well if more of us would heed the admonition to "stick to what you understand." New England farmers understand the management of Merino sheep much better than they do that of the larger coarse wooled sheep of England, which attained its perfection with the introduction of turnip husbandry into that country. These breeds it is true succeed in Canada, but there they are in the hands of those who were brought up in the old country, of men who "stick to what they understand."

If American breeders of the Merino sheep have made mistakes,—if they have produced too much oil or too many wrinkles—it is their own fault and not that of this invaluable animal. These mistakes should be corrected. Such is the wonderful plasticity of sheep in the hands of the skilful farmer that Lord Somerville, an English writer, once said that a breeder "may chalk out upon a wall a form perfect in itself, and then give it existence." Our breeders "chalked out" a heavy fleece, and they have succeeded in "giving it existence"—heavy not only in "grease," but heavy in cleansed wool, as has been shown by repeated experiments — the unprecedented amount of nine pounds and three ounces of cleansed wool having been reported as sheared from a single sheep in New York, the growth of eleven months and twenty-one days. They may chalk out other excellencies and expect to realize them with equal success.

While, therefore, we are making the acquaintance of new breeds of sheep, and learning the art and mystery of their management, let us proceed cautiously, and without permitting familiarity to breed contempt for our tried friends, the Merinos, which have added so largely to our individual and national wealth and comfort. In one word, if we must have a coarse-wool fever let us tone it down to a mild type.

For the New England Farmer.

"SMALL-POTATO" PREMIUMS.

Agricultural exhibitions are designed to be a mutual benefit,—consequently each class, or article should receive encouragement in proportion to its importance to the community.

At the close of our Vermont Agricultural Fair I remarked to some of the directors that a single premium of only *one dollar* was a poor inducement for five or six growers of choice seed potatoes to bring in their samples, have some of them pocketed, and the rest badly bruised, or guard them for three long days. I was met by the reply that I was doing well enough; that men who sold potatoes for 50 cents or $1 per pound had no right to complain.

A glance at our premium list shows that $23 in premiums are paid for the three best traces of seed corn; $12 on sugar; $22 on butter; $25 on swine; $157 on sheep; $40 on flowers and house plants, and $500 on horses, exclusive of "purses." According to the government valuation in 1864, all the horses in this State, over two years old, were worth $2,895,533; according to the estimate, the crop of potatoes raised the same year, was worth $3,195,237, or $299,704 more than all the horses in the State, although the horses were the crop of at least three years.

It seems, then, that an interest consid-

erably the smallest has five hundred times more encouragement than the other, which is larger, and of proportionate importance to both grower and consumer. Potato raisers represent one of the most important agricultural interests in New England. They are the producers of an article of diet, without which Ireland starves, and America looks emaciated. They pay the Society their share of money, and cost it nothing, comparatively. Although the society has never paid us our share, we will say nothing about the arrears and forgive them cheerfully all their past transgressions, if they will but play *fair* and show *fair* play hereafter. We ask no part of the $500 paid on horses, nor the $157 paid on sheep. No; we will help pay both, but we very respectfully ask a sum (divided, as the society may determine, between the three or four best fields, and several best varieties, &c.) equal to what the horses and sheep annually *eat* out of the treasury of the society while on exhibition. Who can say that this is an unfair proposition or an unjust claim. We claim it.

O. C. WAIT.

West Georgia, Vt., Nov. 10, 1868.

WHORTLEBERRIES.—A writer in the *Prairie Farmer* thinks the cultivation of whortleberries would be more remunerative than strawberries. He says, bushes set one foot by three, yielding half a pint to a bush, would yield 95 bushels, worth $5 per bushel, or $475 per acre; and once set, they would be a permanent institution. They might be grown on land fit for little else. A successful experiment, though on a small scale, would be far more valuable than a mere suggestion.

APPLES.—In many parts of New England the apple crop is more abundant than it has been in any year for some time, but as it is quite short in many sections of the country, the fruit will be wanted at good prices. In New Jersey, Maryland and Pennsylvania, apples as well as peaches, have been a complete failure.

TO CURE CORNS.—The corn should first be well softened by soaking the foot in warm water, and as much of it removed by a sharp instrument as can be done without pain. Then apply over the surface a very small quantity of pulverized nitrate of silver, and cover it with a piece of linen or lint, in order to keep it in its place. After twenty-four hours, the foot may be soaked again, and that portion of the corn which has become blackened and disintegrated by the caustic removed by scraping, or with a knife. Repeat the operation till a cure is effected.—*Jour. of Chemistry.*

Youths' Department.

A LITTLE GOOSE.

BY ELIZA S. TURNER.

The chill November day was done,
The working-world home-faring;
The wind came roaring through the streets,
And set the gas-lights flaring,
And hopelessly and aimlessly
The scared old leaves were flying;
When, mingled with the soughless wind,
I heard a small voice crying.

And shivering on the corner stood
A child of four or over;
No cloak nor hat her small, soft arms
And wind-blown curls to cover.
Her dimpled face was stained with tears;
Her round blue eyes ran over;
She cherished in her wee, cold hand
A bunch of faded clover.

And, one hand round her treasure, while
She slipped in mine the other,
Half scared, half-confidential, said,
"O please, I want my mother."
"Tell me your street and number, pet;
Don't cry; I'll take you to it.
Sobbing, she answered, "I forget;
The organ made me do it.

"He came and played at Miller's step;
The monkey took the money;
I followed down the street, because
That monkey was so funny.
I've walked about a hundred hours
From one street to another;
The monkey's gone, I've spoiled my flowers;
O please, I want my mother!"

"But what's your mother's name, and what
The street? Now think a minute."
"My mother's name is Mother Dear;
The street—I can't begin it."
"But what is strange about the house,
Or new, not like the others?"
"I guess you mean my trundle-bed—
Mine and my little brother's.

"O dear, I ought to be at home,
To help him say his prayers;
He's such a baby, he forgets;
And we are both such players;
And there's a bar between, to keep
From pitching on each other,
For Harry rolls when he's asleep—
O dear, I want my mother!"

The sky grew stormy, people passed
All muffled, homeward faring.
"You'll have to spend the night with me,"
I said at last, despairing.
I tied her 'kerchief round her neck—
"What ribbon's this, my blossom?"
"Why don't you know?" she smiling said,
And drew it from her bosom.

A card, with number, street, and name!
My eyes astonished met it;
"For," said the little one, "you see
I might some time forget it:
And so I wear a little thing
That tells you all about it;
For mother says she's very sure
I would get lost without it."

"FATHER," said a cobbler's lad, as he was pegging away at an old shoe, "they say trout bite like everything now." "Well, well," replied the old gentleman, "stick to your work, and they won't bite you."

[Copied by permission from *The Nursery*.]

THE RIDE TO BOSTON.

"Coach all ready for Boston!" shouts William as he climbs up to the driver's seat, and pulls hard at the reins, and cracks his whip. You see the coach, do you not? but where are the horses? I think there must be some; for it seems to take all William's strength to hold them in. It is hard work to drive a stage-coach.

Mary and her little dolly are the only passengers inside. Dolly's health is poor, and her mamma is taking her to Boston to see the doctor. Mary has on an elegant bonnet, which she found in a bandbox in the garret. I hope it does not make her feel proud.

Rachel thinks it much nicer to ride on top of the coach, where she can have a fine view of all the places they pass through. She has her mother's parasol, which will keep the sun from burning her.

James and Harry are on behind. I wonder if William knows they are there. If he does, I think he is too kind-hearted to drive them off, even though they have no pennies with which to pay for a ride.

Frisk barks at the coach, as dogs are so fond of doing; and little Mary tries to climb up by her brother William's side. She does not want to be left behind this fine day, when all the boys and girls are going to Boston. Look out, little Mary, and do not get run over.

"I do not believe they are going at all," says my little Margaret, who looks over my shoulder; "for see, the coach has only one wheel, and that is off! They are only playing, just as I do on the old coach back of the barn."

What do you think of it, little reader?

L. B. H., *in Nursery*.

FEEDING THE PIGEONS.

Some years ago a man left some money to the city, directing in his will that at two o'clock every day, in one of the public squares, all the pigeons should be fed. Now, perhaps, you may think that pigeons do not know how to count, and cannot tell the difference between two o'clock and four o'clock, or between a quarter before two and a quarter after two. Well, I do not suppose that they can tell the time by looking at the large clock, or that they can count; but this I know that they can tell when their dinner is ready as well as any of the children who read this paper. A large bell, and it is a very large one, strikes the hours, and a smaller bell strikes the quarters. Thus the little bell says one, two; then the great bell says one. That means two-quarters after one, or half-past one. By and by the little bell strikes one, two, three, and the big bell strikes one: that means three-quarters after one, or, quarter before two. But pigeons do not mind that at all. In a little while the small bell says one, two, three, four. Then I saw crowds of pigeons coming in all directions, over the houses, through the streets and lanes, and by

the time the big bell had struck one, two, a great number had collected, and they kept coming for about a minute. After they had picked up their dinner, they flew away, and paid no more attention to the big bell or the little bell, although they kept on striking the hours and the quarters just as before. No more pigeons came until two o'clock the next day. Can any of the children tell how the pigeons know when the clock strikes two? And are the little readers of this true story as punctual to their duties as these pigeons?—*Child at Home.*

AN INSECT SAMSON.

Every one who has taken the common beetle in his hand knows that its limbs, if not remarkable for agility, are very powerful; but I was not prepared for so Samsonian a feat as that I have just witnessed. When the insect was brought to me, having no box immediately at hand, I was at a loss to know where to put it until I could kill it; but a quart bottle full of milk being on the table, I placed the beetle for the present under that, the hollow at the bottom allowing him room to stand upright. Presently, to my surprise, the bottle began to move slowly, and glide along the smooth table, propelled by the muscular power of the imprisoned insect, and continued for some time to perambulate the surface, to the astonishment of all who witnessed it. The weight of the bottle and its contents could not have been less than three pounds and a half, while that of the beetle was about half an ounce; so that it readily moved a weight 112 times exceeding its own. A better notion than figures can convey will be obtained of this fact by supposing a lad of fifteen to be imprisoned under the great bell of St Paul's, which weighs 12,000 pounds, and to move it to and fro upon a smooth pavement by pushing within.—*Prof. Goss.*

SEEING IS DECEIVING.—Here is a row of ordinary capital letters and figures:

S S S S X X X X Z Z Z Z 3 3 3 3 8 8 8 8

They are such as are made up of two parts of equal shapes. Look carefully at these and you will perceive that the upper halves of the characters are a very little smaller than the lower halves—so little that an ordinary eye will declare them to be of equal size. Now turn the page upside down, and without any careful looking you will see that this difference in size is very much exaggerated—that the real top half of the letter is very much smaller than the bottom half. It will be seen from this that there is a tendency in the eye to enlarge the upper part of any object upon which it looks. We might draw two circles of unequal size, and so place them that they should appear equal.—*Once a Week.*

TO BOYS.—Horace Mann talked to the boys in this way: "You are made to be kind, generous and magnanimous. If there's a boy in school who has a club foot, don't let him know that you ever saw it. If there's a boy in school with ragged clothes, don't talk of rags in his presence. If there's a lame boy in school, assign him some place in the play which does not require much running. If there's a dull one, help him to get his lessons."